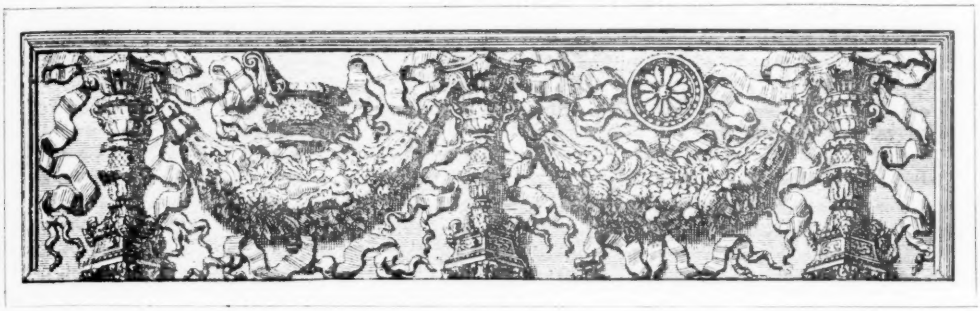


# WILLIAM EDEN NESFIELD'S DRAWINGS.

By R. Phené Spiers [*F.*], F.S.A.

IF it were not for the beautiful series of drawings illustrating mediæval architecture of the twelfth and thirteenth centuries in France and Italy, published in 1862 by William Eden Nesfield, his name would already by this time have been forgotten, except by a limited number of his friends and admirers. There are still some, and they include painters as well as architects, who recollect the enthusiasm which was created by one of his early works—viz. the lodge in Regent's Park. To those who in their rambles had sketched the half-timber structures in Kent and Surrey, the possibility of the revival of similar picturesque structures, breathing throughout the spirit of the old work, must have come as a revelation. This lodge, however, is only one of a series of many works, some of them of much greater importance, which are to be found here and there throughout the country, but, from the fact that they were chiefly built on private estates, are little known, even the name of the architect who designed them being forgotten. This, however, is partly due to the fact that Nesfield would never allow any of his executed works to be published, and at his death he left strict injunctions that all his working drawings should be destroyed. Mr. Norman Shaw states that Nesfield never made a show drawing, nor did he ever send drawings to the Royal Academy Exhibition. His works, however, still exist, and these will in the future take their place as among the most beautiful creations of this second half of the nineteenth century.

It is not, however, his executed works which are to form the burden of this article, but that which comes next in importance to them—viz. the record of the studies which he went through, in order to cultivate his powers of design and drawing, and of which his works are the outcome. Some of the members of the Council and of the personal friends of William Eden Nesfield have lately purchased and presented to the Library of the Institute what may virtually be looked upon as the whole collection of his drawings and sketches, including all but two or three of the famous series which he published in 1862, about sixty to seventy others of equal beauty but unpublished, and two sketchbooks, one being the octavo album known to his friends, which contains perhaps the most delicate and beautiful drawings it would be possible to find. The main collection, arranged under his direction, is contained in two large folio volumes. Before describing the collection it may be as well to give a brief outline of his student career. Nesfield was born in 1835, and was brought up at Eton. In 1850 he was articled to the late William Burn, who, however, sent him for a year to learn drawing with the late J. K. Colling. Returning to Burn's office in 1851, he found a congenial companion in Mr. Norman Shaw, and the two henceforth studied together (except

during the greater portion of the long tour which the latter made as Travelling Student of the Royal Academy), and eventually, as it is known, were associated for a time as partners in their professional career.

The classic style of the work in Burn's office was not much to Nesfield's taste, but he avenged himself by devoting all his spare time when in London to the measuring and drawing of Pugin's work in the Houses of Parliament. He and Mr. Norman Shaw obtained permission from Sir Charles Barry to prosecute their studies there, and the Saturday afternoons and occasional Sundays were spent in measuring and drawing, not so much the regular architectural work as the accessories in the shape of carved woodwork, metal work, stained glass and tiles. Their summer holidays were, of course, devoted to old work, and at Worcester, Hereford, and Salisbury they measured and drew to their hearts' content. The study of Pugin's work, however, increased his sense of dislike to Burn's classic work, and in 1853 he left the latter's office and entered the late Anthony Salvin's. In 1854 he accompanied Mr. Norman Shaw to the north of France when the latter was starting on his tour, and for his month's holiday worked with him. In 1856, when Mr. Norman Shaw returned to England, he also entered Salvin's office, and the two friends worked together again. On his return, Mr. Shaw was requested by the Council of the Royal Academy to publish his drawings, and the success of these probably suggested to Nesfield the idea of undertaking a similar work. Terms were arranged with Messrs. Day & Sons, who had published Mr. Shaw's work, and in 1859 he started for the Continent to prepare the drawings, returning, however, to England for the winters (one drawing at Rouen has a date of 1861). This terminates, so far as the collection of drawings shows, Nesfield's career as student.

The thicker of the two large folio volumes of drawings contains the earliest efforts of Nesfield's pencil; the pages have been numbered, so that the simplest way to describe the collection will be to follow them.

The first seven pages contain his earliest drawings, dating from 1846, when he was eleven years old: some are in pencil, some in water-colour; some are, as noted on them, "original," some are copies. The late J. D. Harding was a great friend of Nesfield's father, and on the 24th August 1848 gave Nesfield his first lesson, recorded on the sketch, probably by his mother, "Willie's first lesson with Mr. Harding." Pages 8 and 9 contain Harding's lessons and Nesfield's copies. The study of a branch of a tree, dated 29th August, by Harding, showing how it should be shaded according to the inclinations of the sun's rays, is one of the most brilliant examples it would be possible to suggest of what a lesson should be. Nesfield evidently felt this, for on one of the copies (page 9) he has written "One of J. D. Harding's "lessons, most loveable and cherished." The next two pages contain copies of Harding's drawings. In September of the same year (1848) Harding and Nesfield go to Beaumaris Castle, and pages 12 to 14 contain a drawing by Harding, its copy by Nesfield, and his own original sketches. Page 17 contains what must be looked upon as a remarkable copy for a lad of thirteen who had had his first lesson only three months previously. On the same page are water-colours which are not brilliant, but show much sense of aërial effect; and Mr. Shaw informs me that many of these are copies of the elder Nesfield's drawings, who was a member of the old Water-Colour Society. On pages 22 and 23 are two other admirable copies, and on page 28 an original drawing of a tower at Eton done in 1849, which already suggests his future powers. Up to page 43 are numerous studies, some in colour. A drawing (elevational) of arcades of Chapter-house, Wenlock Abbey (page 44), done in 1850, is perhaps his first purely architectural drawing; in this drawing, done when he was fifteen years old, the value of Harding's lessons is shown. On page 47 is another admirable copy of one of Harding's drawings. It is possible that many of these copies were made from

some of the numerous lithographs published of Harding's drawings. Page 48 is his first drawing of a classic Order, which I fear would not pass the present examination standard. Perhaps he was set to it by Colling. Pages 60 and 61 contain four very good drawings, apparently in "crayon conti," on toned paper, and tinted. A water-colour of an old house at York (page 62) is one of his best: he has followed Harding's custom in using a little body-colour, and the texture of the broken plaster-work is admirable. Then follow more drawings of the Orders. On page 73 is a measured drawing of the bench-ends of Ufford Church, Suffolk, done with J. K. Colling; the date has been altered to 1852 from 1851. It is far too good a drawing to have been made in the latter year; besides, other windows in Norfolk follow, all dated 1852, which suggest they were the work of one tour. On page 80 is the first drawing done in the Houses of Parliament: drawings of tiles, half full size, dated February 1852. This was probably the first drawing of that type of work done by him. The result of these studies made in the Houses of Parliament seems to have drawn his attention to similar architectural accessories in his sketching tour; and after that, tiles and metal-work, linen-fold panels, coats of arms, old lettering, &c., all of old work, are recorded in his sketches. A measured drawing of Bishop Bridport's tomb in Salisbury Cathedral made in 1852, when he was seventeen, is a capital work, showing that he had mastered the use of the ruling and bow pens. Pages 96 to 105 are filled with drawings of metal-work, iron and brass, and of tiles done in 1853 in the Houses of Parliament. On page 106 are two admirable drawings of the Guesting Chamber at Worcester (now pulled down): these were done on a tour with Mr. Norman Shaw in 1853. Henceforth he became a master in draughtsmanship. Winchester, Wells, Gloucester, and Salisbury all furnish him with examples, almost always measured work, and of the most elaborately carved description. In 1854 he makes studies of masonry of the castles of Conway and Caernarvon. The jointing of ashlar and rubble masonry seems always to have had a special attraction for him. This is already shown in a drawing of Winchester College staircase leading to the dining hall (page 113), and in the measured drawing of the west window of nave, Wawn Church, Yorkshire (page 81), done 6th March 1852. The drawing of the clerestory from roof of aisle of Evreux Cathedral (page 138) is one of his early finished drawings made when travelling in July with Mr. Norman Shaw. I have omitted to note that on pages 128 and 129 occurs almost the only design in the book: a sketch for a college, plan and elevation, made in March 1854, for probationary work of the Royal Academy; but it was never completed and sent in. There is something Puginesque about the design. Already in 1852 he had paid a visit with Mr. Shaw to Ramsgate to see St. Augustine's Church, which he sketched, and they happened to arrive on the day of Pugin's funeral. Again in 1854 Nesfield visits St. Augustine, and makes a careful perspective view (page 139), and he still continues his studies in the new Houses of Parliament. In 1855, whilst his friend Mr. Shaw was abroad, he visits Worcester again, and there is a second drawing of the roof of the Refectory, or Guesting Chamber (page 152), which fairly takes one's breath away. That and a portion of a buttress of Wells Cathedral, on the same page, are drawn with a precision of line and vigour of effect which are quite remarkable. These and some other drawings of work abroad fill up to the 166th, the last, page of the first folio.

The second folio contains chiefly the original drawings of the work published in 1862, and entitled *Specimens of Mediæval Architecture of the Twelfth and Thirteenth Centuries in France and Italy*. Mr. Norman Shaw returned from his tour in 1856, and submitted the drawings he had made to the Council of the Royal Academy, who requested him to publish them. The work, entitled *Architectural Sketches from the Continent*, was published in 1858, and he put the greater number of them on the stone himself. Nesfield must have constantly had the opportunity of seeing the process; it is possible, therefore, that at that time he conceived the

idea of publishing his own drawings some day. The sketches made in the summers and autumns of 1857 and 1858 are so beautifully finished that they might have been transferred at once, had the reproductive processes of the last few years been known. They could, at all events, have been handed over to an expert, as they were later on, to copy them. The success of Mr. Shaw's book having been assured, Mr. Nesfield early in 1859 entered into communication with Messrs. Day & Son, who had published Mr. Shaw's drawings, in order to arrange terms for the publication of a second series of the same character, and he undertook to make a tour in France and Italy for the special purpose of preparing additional drawings, so as to make up a series of one hundred plates and a title-page. This second folio contains the title-page, the upper portion of which is a lithograph from Nesfield's original design, the lower portion the original drawing made for Nesfield by Mr. Albert Moore. Then follow ninety-six of the original sketches, two tracings, one of which seems to cover the original drawing, and one lithograph (to supply a missing drawing). There is only one drawing missing, therefore, which he gave to Mr. Norman Shaw. Of the hundred plates, five only were put on stone by Nesfield himself; the others were copied by other artists from his drawings. In six cases the plates were re-drawn, the originals not having been completed. If, on comparing the originals with the published lithographs, any fault is to be found with the latter, it is that they have been worked up too much. No one knew better than Nesfield where to leave off in the indication of the stone jointing or of the tiles; he put in sufficient to suggest all the important constructional lines, and no more. The original drawings, therefore, have a brightness (beyond the brilliance of touch) which is wanting in the lithographs, some of which are heavy, and have the appearance of being too much laboured; and this defect is found even in those which Nesfield himself drew on the stone. These drawings, therefore, have a special value attached to them, and will no doubt be consulted with advantage by our future Pugin Students. That which is most remarkable in the drawings is the unerring truth of the lines of the arches. A minute examination of them shows that he began by turning in with the bow pencil most of the arch-moulds—of pointed arches, at all events, when this was practicable. These lines were put in as lightly as possible, so that when he drew them in by hand afterwards they are scarcely noticeable. His own line is so firm and accurate that one can only suppose he adopted this course when commencing a sketch. To turn in the lines of an arch in a geometrical drawing is easy enough, but to find the proper centres for a series of lines of the arch-moulds of a great portal would seem to be a most difficult task because the lines do not lie parallel to one another; at the apex of the arch they are wider apart than they are at the springing. Plate 5, the west door of the church of the Abbey of Ardennes (page 3 in folio), is an example which may be quoted as suggesting the great difficulty of determining the centres.

Next in value to the interiors and exteriors of early work, the examples of the Flamboyant and early Renaissance styles, such as plates 14 and 15 (page 7 in folio), claim one's admiration. The beauty of the freehand drawing of the staircase tower of the Hotel of the Dukes of Berri at Bourges, and the upper part of the staircase of Blois, is most remarkable. The latter is one of the most complicated problems in perspective which could be found, but Nesfield draws it in with the greatest ease, as though he had nothing else to think of than to make a beautiful line, and one full of feeling. This is, in fact, one of the chief characteristics of all Nesfield's drawings. They are all lined in as if he had got a camera lucida in his eye, with these special advantages, that he had no need to look through it, and that the lines never shifted. More than that, he must have had a magnifying glass as well, or it is difficult to understand how he could have made such a drawing as the south-west Flamboyant tower of Chartres (page 12 in folio).

The Earl of Leicesters hospice Warwick.
Oct. 17th 1862.
Founded by Robert Dudley Earl of Leicester 1571 for 24 old soldiers & a matron. The present Master is Lord de L'Isle who succeeds the Lieutenant. The chapel is dedicated to St. James & is built over the ancient gateway of the city.
DROIT ET LOYAL

FACSIMILE OF A PENCIL SKETCH BY W. E. NESFIELD. [p. 69].

I have referred to the use he made of the bow pencil; the T and set squares were also utilised when necessary, as in the towers of Coutances Cathedral; but even in ruling them in, the lines are not of the same thickness—he breaks or increases the force of the line to avoid the hardness of a ruled line. Although at an early date he had freed himself from what may be called the mannerisms of his master, Harding, yet throughout his work the influence of his early training is shown in the crispness of his lines and the sparkling, sunny effect of his shadows. The lesson of the shading of the trunk of a tree in accordance with the inclination of the sun's rays was never forgotten by Nesfield. The correct representation of the shadows thrown by the sun was never lost sight of by him. In most drawings, even including those by painters, the sun seems to be in a dozen different positions at the same time—due to the fact probably that they cannot all be Joshuas. Nesfield avails himself of an actual shadow when it suits his drawing; if he puts in his own shadows they are always in unison, and are never contradictory. His reflected lights are admirable. Another great characteristic of all his drawings of old work—he never exaggerates their age or ruin; in the actual jointing of the masonry he finds quite sufficient to break up the plain surface. The way in which he produces variety is by leaving out. But the whole of these pages might be filled with descriptions of the lessons which Nesfield's drawings suggest. It will perhaps be sufficient now, therefore, while speaking of the published series, to call attention to three examples:—I. The two capitals from Chartres (p. 11 folio), which for perspective foreshortening, beauty of line, and brilliance of shading are masterpieces of drawing; II. The south front of the Cathedral of Pisa (page 56 of folio), the only finished purely architectural water-colour drawing in the collection; and III. The second plate (page 1 in folio), details of carving of Amiens Cathedral. This drawing was made in May 1857, when he was under the influence of Viollet-Le-Duc. It is drawn on tinted paper, shaded in black, with the high-light in Chinese white. At the end of the folio volume will be found a number of tracings from drawings by Viollet-Le-Duc, which the two young English students, Nesfield and Mr. Norman Shaw, had permission from him to make at Amiens in April of the same year. Nesfield probably, however, found himself more at home in pencil shading than in the use of the brush, and he rarely resorted to it afterwards.

From page 60 of the folio are the unpublished drawings and various studies in colour. Some of these are earlier drawings, but quite as fine as the published examples: The interior of Chartres; the tower of St. Martin's, Honfleur; the belfry of west tower of Rouen Cathedral; the interior of Caudebec Church; the lower part of the north transept with the fine portal of Rouen Cathedral,* one of the most delicate of the whole set, and a remarkable drawing to have been made by a boy of nineteen, the greater part of whose time was occupied in office-work; for it must be remembered that up to 1856 all the drawings made by Nesfield were done during his holidays, and even after then only the summer months seem to have been devoted to his travels. Many of the examples which follow were done during the month he accompanied Mr. Shaw abroad in 1854. There is no date to the bay and transverse section of Amiens Cathedral (page 74 in folio); it is placed by the side of a bay of Bourges, dated 1854, but was, I am informed, not measured till 1859.

On page 79 is an interesting drawing not named or dated, but it represents a bird's-eye perspective of a restoration of the Abbey of Cluny. It is set out in a pencil drawing on which

* An amusing incident is told in connection with this drawing. Nesfield was upset from his sketching-stool, and all his materials, including the drawing, were sent flying into the street. A neighbouring cobbler, taking pity on the poor artist, ran out of his shop to assist him, and taking up the drawing, which, as usual, had fallen face downwards, was about to wipe the dirt off with his apron, but was fortunately stopped in time. The good intentions of the compassionate cobbler, however, so delighted Nesfield that he never lost an opportunity, when passing near, to go and have a chat with him, always taking half a pound of tobacco as a present.—R. P. S.

are marked the portions which exist: viz. the west tower of fifteenth century over crossing of eastern transept, the Bourbon chapel, the cloister (of which there is a published drawing, plate 27), and a fourteenth-century chapel. Over this pencil drawing on a folding slip is a second study in ink of the eastern half of the abbey. This is remarkable for the minute detail of the Bourbon chapel and the eastern apse of the south transept. Then follow (pages 82–84) studies of frescoes and figures in the Campo Santo at Pisa, and of the pavement of Siena Cathedral (pages 85 and 87). Page 92, a drawing of the pulpit. Page 93, a measured drawing of some of Viollet-Le-Duc's own work at Vézelay, not dated unfortunately (Nesfield went to Vézelay in August 1859), because it would be interesting to know whether he continued to measure and draw modern work. On pages 95 and 96 are drawings of the Parthenon and the Propylæa at Athens, with general views of the Acropolis: these were made in March 1858. By comparison of the drawing of the Parthenon with photographs in its present state, it might be possible to ascertain the increase in the size of the cracks of the architraves. On page 97 is a beautiful drawing of the old cathedral at Athens, which shows clearly the sculptured slabs taken from earlier edifices. On page 102 are some sketches in Constantinople, which shows he was able to draw there; it is not easy, because the Turks do not like it and throw stones at you. Then follow numerous sketches in pencil from the old masters; on page 115 two careful pen-and-ink copies from examples of Albrecht Dürer's drawings at Florence, and on the last two pages of the folio the tracings of Viollet-Le-Duc's drawings, which were made in April 1857 at Amiens.

I have now to speak of the two octavo albums. Of one of these there is not much to be said; it is probable that Nesfield kept two or three going at the same time; the sketches in it are sometimes hurried, and the paper, having a hot-pressed glazed surface like writing paper, does not lend itself to pencil-work. The other sketchbook is of a different kind, the paper being a kind of straw paper, which was discovered by Mr. Shaw and Nesfield about 1862. They each of them had a book made up of it, taking it to Messrs. Parkins & Gotto for that purpose. It takes both a fine and a dark line, H.B. being apparently the best pencil to use. The paper is equally good for ink lines, as witness the Japanese drawings (pages 34 to 36), and the isometrical prospect of "Ye Forteress of Caer Narvon as it might have been a long time "ago" (page 142). The drawings in it are all sketches in the proper sense of the word. It is true that occasionally he turns in arches with the pencil-bow, and in two or three measured sketches light lines have been ruled in; as a rule, however, all is freehand drawing, and of the most beautiful and delicate kind. The jointing of the masonry, tile hangings, and tile roofs all seem to have had a special fascination for him. In the pencil sketch reproduced [facing p. 608], the subject perhaps is one which would be selected by a painter rather than an architect; and although all the half-timber work and the masonry of the chapel are drawn in with that knowledge which few but architects could pretend to—and even then they must have been expert in half-timber work—Nesfield seems to have been more attracted by the cobbles in the foreground, of which he sketches in exactly as many lines as the sketch will admit; or by the tiles of the various roofs, of which he indicates those only which give brightness and brilliance to his sketch. If in some of the string-courses of the barge-boards all the lines are not carried through, it is not because he knows of the dodge and adopts it throughout, but to avoid harshness, and to accentuate certain parts. As a matter of fact, every barge-board happens to be treated in a different way, and this variety could only be gained by representing each as it appeared to him when looking at it.

The long training of ten years he had undergone as a draughtsman of the most elaborate architectural work, enabled him to grasp at once the salient characteristics of any subject he was sketching. What strikes one in the sketches in this album, in contra-

distinction to the subjects which he sketched for his earlier finished drawings, is their comparative simplicity; there is no more elaborate flamboyant detail; he delights much more in pure constructive masonry, or in the framing of simple open-timber roofs. Of both kinds there are numerous examples, such as the roof over one aisle of Leominster Church; the bell-framing in Rustington Church; the roof of the kitchen in the Bishop's Palace at Chichester—a marvellous drawing right across two pages; the roof in the George and Dragon at Speldhurst, in Kent; the roof of Cuddesden, or, again, the half-timber work at Warwick, of Upperfolk, Fernhurst; the old hall, Sandbach, Cheshire, which he repaired; or the old house at Conway, since pulled down; or, again, in hanging tile-work, as at Rusthall Common, the shop, Speldhurst, or the Red Lion, Lower Green, near Tunbridge—the latter one of the most beautiful drawings in the book. Whilst in earlier days no subject could be too elaborate for him, now he delights in the greatest simplicity—Climping Church, or Merton College Library, or Bampton porch, or Broughton Castle; the drawings of the old chests at Winchester, showing the framing and construction; of the settle at the George and Dragon Inn, Speldhurst; of the Jacobean pulpits at Tortington and Edburton Churches, and St. Lawrence's, Reading; of the chair at Warwick, the bench and the chair in the Lady-chapel of Winchester Cathedral. The drawings are of the most admirable kind, with full notes as to dimensions, framing, and covering. Every page, indeed, has its interest; but I must limit my description, and draw attention to three subjects: I. (pages 33 to 36) figures taken from Japanese books in 1862—the first books, perhaps, which came over from Japan, Nesfield having at once seized on the vigour in the drawing and the designs on the covers; II. (page 138) a sketch of the hall at Conway Castle, and (page 139) a suggested restoration of the same drawn in ink; and III. (page 143) a minute pen-and-ink drawing of Caernarvon Castle in the old times, with ships of the period grouped and drawn in perspective in the most marvellous way.

## NOTES UPON THE SMALLER "TREASURIES" AT MYCENÆ.

By William Simpson [*M.A.*], R.I.

THE term "treasuries" is not here used in ignorance of the real character of these monuments which still remain on the site of the ancient city of Mycenæ. Under this name they have been known from the time of Pausanias, and such a lengthened use of the word would in itself almost justify its continuation; but my main reason for its employment is, that it serves to distinguish this particular class of tombs from those of a different kind in Mycenæ as well as in other parts of Greece. Monsieur Perrot calls them "Domed Tombs" and Schliemann "Beehive Tombs," fairly good names as descriptive of those at Mycenæ; but I should prefer to apply the words "Tumulus Tombs," believing that their true character would be thus expressed. Such nomenclature would not be limited to Greece, but would include a very wide range of monuments extending over a large portion of the globe. The cells of tumuli are not all circular in plan, nor domed in their roofs. Some of the Kertch tumulus tombs are square; and I give illustrations [figs. 2, 3] of one of the Bin Tepé, or the Thousand Tumuli, near Sardis, which is square in plan, with a flat roof formed of three stone slabs.

My visit to Mycenæ occurred in March 1877, shortly after Schliemann had closed the first explorations at that place.* Before then I was familiar with the so-called Treasury of Atreus from drawings, though they did not in the least prepare me for the surprise I experienced

* My mission there was to make, for the *Illustrated London News*, sketches of the explorations that had taken place. After that I visited the Troad, and made illustrations of Hissarlik, and other sites there; and as Wood had shortly before finished his work at Ephesus, I went on to that place also.—W. S.

on first entering the monument itself. I had not realised the great size of the beautiful dome, which, in the dim light that is permitted to enter by the doorway, may have helped perhaps

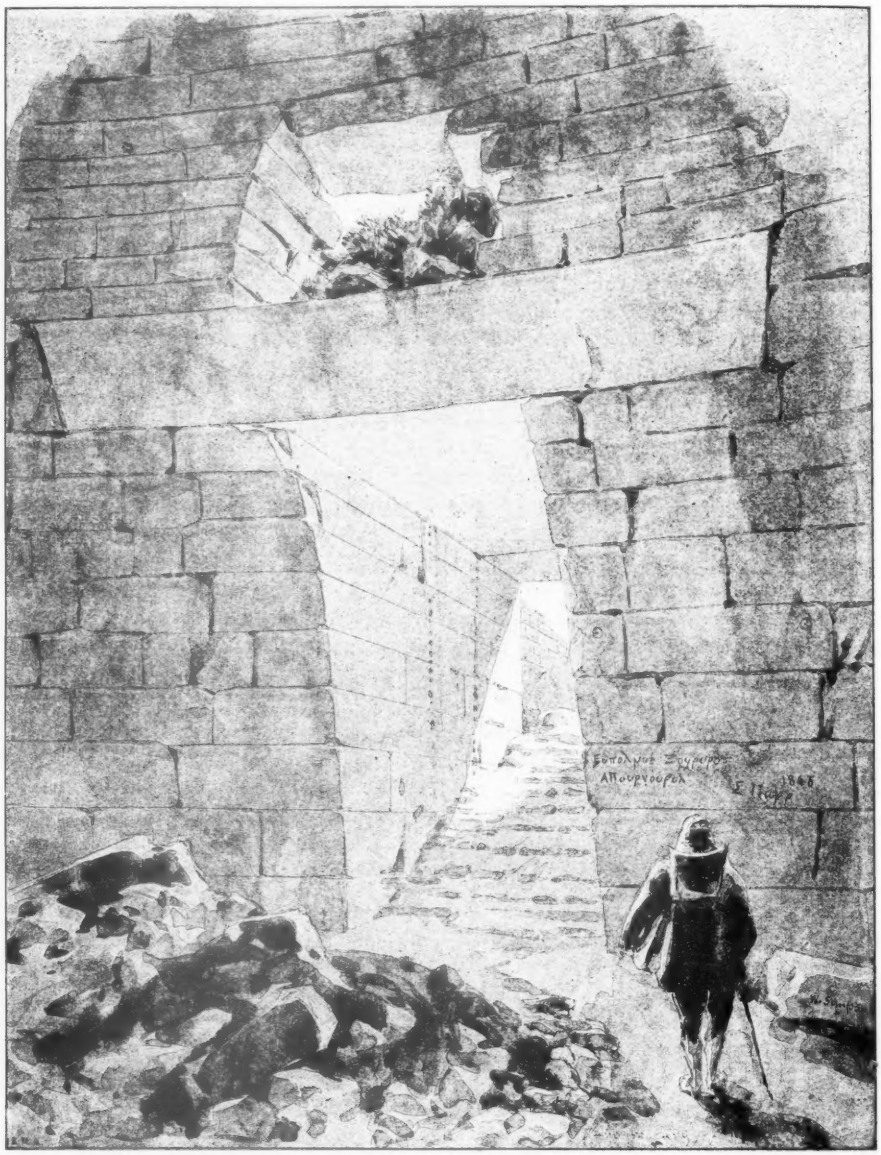


FIG. 1.—THE SO-CALLED "TREASURY OF ATREUS" AS IT WAS IN 1877.

to make it look higher and grander than it really is. A walk along the dromos, and a glance round the interior, were sufficient to convince me that I was in the sepulchral cell of a tumulus, and I naturally asked myself the question, Why does this place pass for a treasury? I was

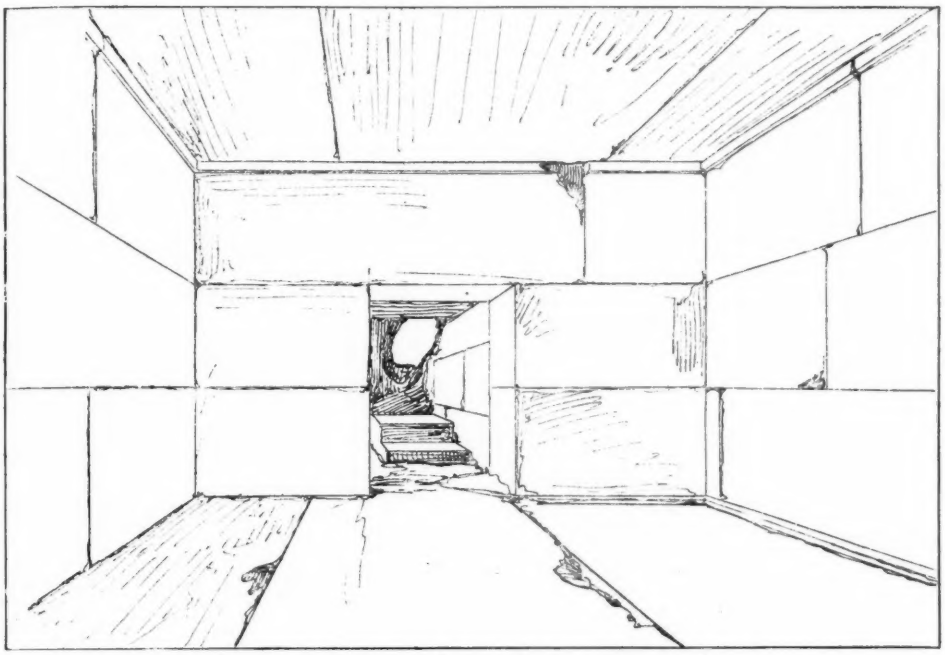


FIG. 2.— CELL OF TUMULUS, BIN TEPÉ, SARDIS (ON THE HERMUS RIVER) ASIA MINOR.

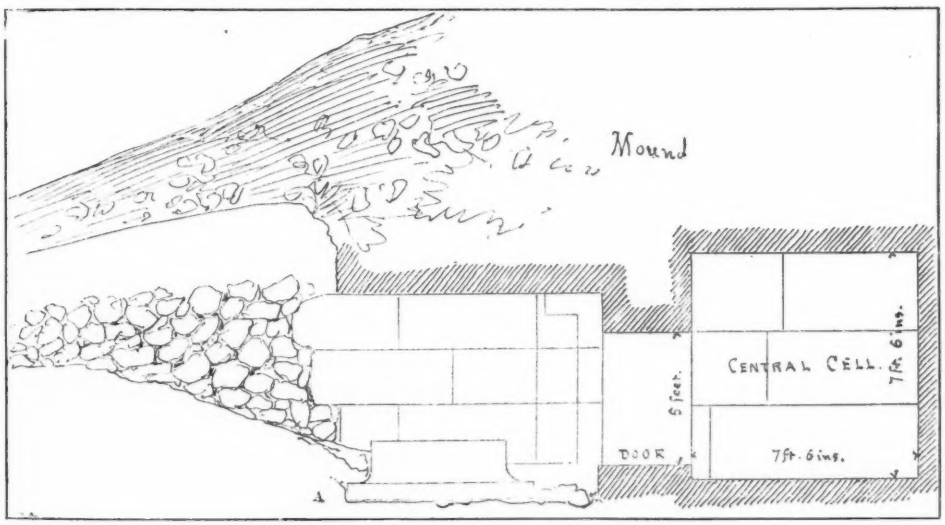



FIG. 3.— SECTION OF CELL OF TUMULUS, BIN TEPÉ.

A, block of stone that closed the doorway.

with the troops who, in May 1855, occupied Kertch, in the Crimea, at the entrance to the Sea of Azof, and had seen the tumuli around that town. They have the same dromos with walls rising in height towards the doorway— a form resulting from the lower slope of the mound, and

found in the Bin Tepé tumuli at Sardis. At the end of this dromos is the doorway leading into the constructed cell—here, at Mycenæ, in the so-called treasury, I found the very same arrangement in every part. The details of masonry and construction differ in many ways, but the general design of the monuments preserves a similarity that cannot be mistaken. Feeling confident in this, it was a slight surprise to find on my return home that archæologists were still doubtful as to what the building had been originally. Dr. A. S. Murray, who, it turned out, had realised their sepulchral character, told me of a German writer who had published a work in which he treated these treasuries as tombs. Curtius, I understand, has also written about them from the same point of view. At the present day, so far as I know, there is no difference of opinion regarding them.*

It was after seeing the Treasury of Atreus that I chanced to come upon two of the smaller "treasuries." My first impression was that they belonged to what are now termed "rude stone monuments," and that they were dolmens. It was with this idea in my head

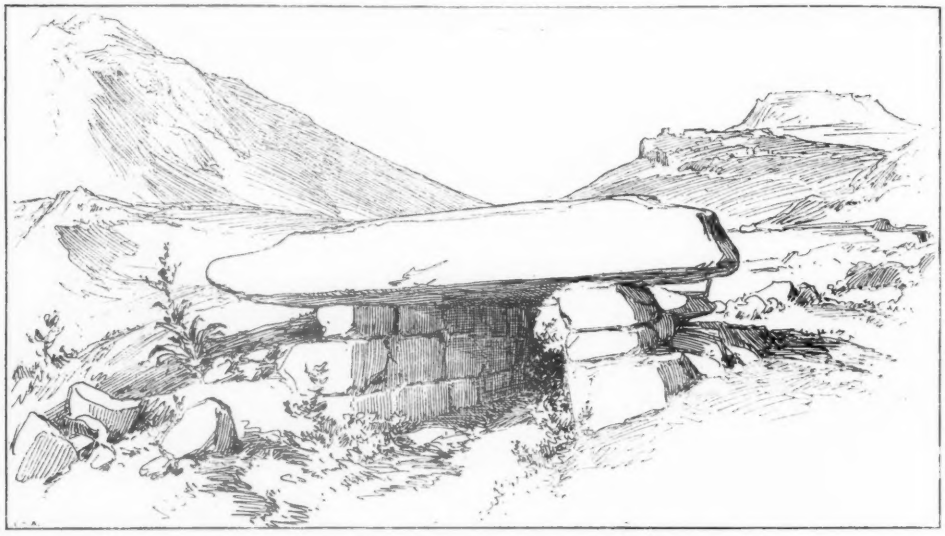


FIG. 4.—THE THIRD TREASURY, MYCENÆ. (From a sketch by Wm. Simpson, R.I.)

that I sketched one of them, and it was only when making a plan of it—which has been my custom with such monuments—that I discovered the remains of the circular cell: there is not much of it left, but still quite enough to show its real character. On carefully inspecting the other, a portion of the circular outline in it also became visible. It then dawned upon me that, although smaller and ruder in construction, these remains belonged to the same class of structures as the Treasury of Atreus and Madame Schliemann's Treasury.† There are three more of these smaller treasuries, making seven in all at Mycenæ. I did not see the three others, and I have seen no description of them, but I give drawings of the third and fourth treasuries [figs. 4, 5], as they are called, from which their character can be understood.

These rude erections could not have been decorated as we know the Treasury of Atreus was. In the third treasury it will be seen that the upper stones rest upon two walls of roughly dressed blocks, of which three courses are visible above ground; most probably

* Schliemann, in his *Mycenæ and Tiryns*, ignores their character as tombs, and deals with them alone as treasuries.—W. S.

† So called from Madame Schliemann having superintended its excavation while her husband was engaged at the explorations within the Gate of Lions.—W. S.

there are more courses now covered up. These walls slope inwards towards the top, and correspond to the sloping walls in the doorway of the Treasury of Atreus; in which, again, it will be noticed [in the illustration of the doorway, fig. 1] that the roof is covered by two large lintels, the inner one of them being the larger. This is a magnificent block of stone; its length on the lower surface is 27½ feet, and on the upper 29 feet; it is 17 feet in width and 3 feet 9 inches in thickness, and is calculated to be about 130 tons in weight. The inner edge is curved to harmonise it with the curve of the circular dome. In the plan of the third treasury [fig. 6] is a similar arrangement; there are three lintel stones, but the largest is the inner one, and its edge is curved to run with the circular plan of the dome. The fourth treasury is so very rude that the slope of the walls cannot be affirmed as a certainty; the roofing stones are also very rude and fragmentary; there appears to be five of them, and the inner and also the largest of them has been trimmed to follow the curve of the dome. There is a

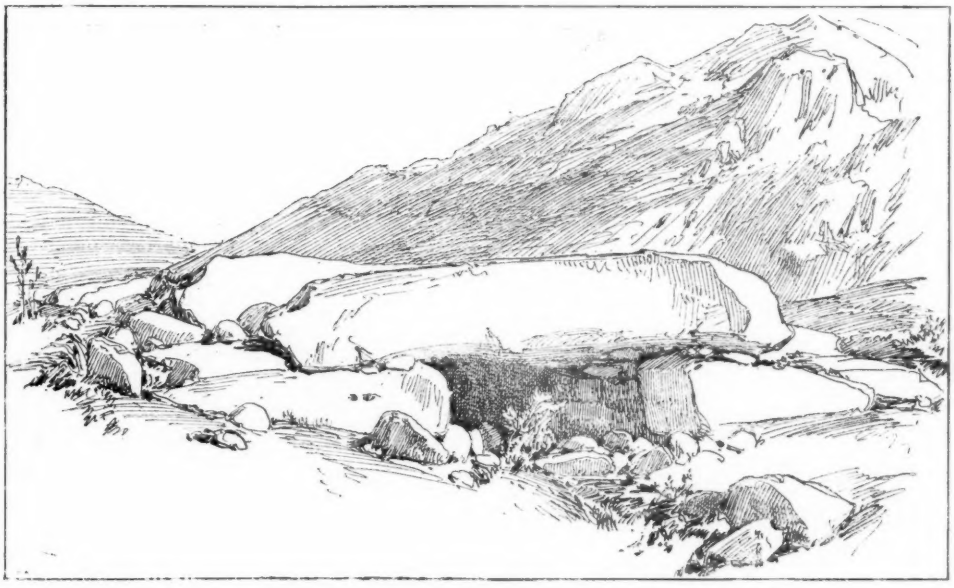


FIG. 5.—THE FOURTH TREASURY, MYCENÆ. (From a sketch by Wm. Simpson, R.I.)

curious and at the same time what appears to be an exceptional projection in the form of this stone, which, although rough, appears to be too regular in shape to be accidental; but what its purpose may have been I can form no notion. It must have formed a sort of shelf above the doorway [fig. 7].*

These details are sufficient to show that the smaller treasuries belong to the same class of structures as the larger ones, and that the Treasury of Atreus is only a more highly

* The plans of these smaller treasuries here given only pretend to be sketch plans, and the measurements had better be taken as approximate: however, they are accurate enough for the purpose of what is here written about them. It is now so long since I made these sketches that I quite forget on what authority the enumeration of "third" and "fourth" was taken. The only illustration of these treasuries that I have noticed is in Dodwell's *Views and Descriptions of Cyclopian, or Pelasgic Remains in Greece and Italy*, published in 1834. Even MM. Perrot and Chipiez, in their *La Grèce Primitive, L'Art Mycénien*, which appeared only last year, although they give numerous illustrations of the Treasury of Atreus and the second treasury, have not, if the English translation of that work is full and correct, given a scrap of illustration of these smaller treasuries. The size, stated above, of the large stone lintel in the Treasury of Atreus is not from my measurement; it may be assumed as correct.—W. S.

developed example. Owing to its having been constructed on a slope, its tumulus character is not apparent. The position of the smaller treasuries is upon more level ground—this is the case with at least the two I made sketches of—and when their domes were covered with earth they must have had the appearance of mounds. As their constructive character, although far inferior in every way, is the same as that of the larger treasuries, it is clear, in my opinion, that the latter were also tumulus tombs.

In the illustration of the Treasury of Atreus which shows the doorway, two perpendicular lines of small holes are visible; these are supposed to have held the bronze pins by means of which the frame of the bronze door was fixed to the wall. At the time of my visit I did not notice whether any indications of a door existed or not in the smaller treasuries; and my sketches, unfortunately, fail to give any information.

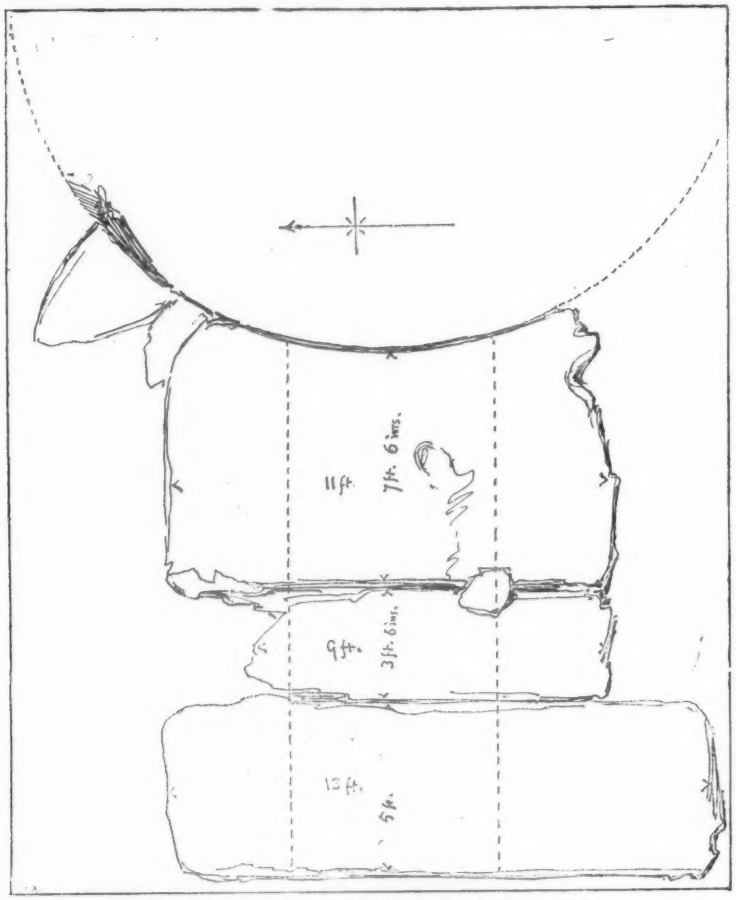



FIG. 6.—SKETCH PLAN OF THE THIRD TREASURY, MYCENÆ.

The length of the doorway is a marked peculiarity of these monuments. There is no constructive requirement that seems to demand it. If any special reason for it existed, which there no doubt was, no suggestion of its purpose has as yet appeared. The plan of the fourth treasury curiously enough recalls the "allées couvertes" found in France, where they form part of the construction of dolmens and mound tombs; but their purpose, if they had any, is also as yet unexplained. The only guess I can make is that at some early date, when it was customary to close up the cell, the funeral rites would be performed at the entrance, and that in course of time the walls were extended and the space enlarged for this purpose. This would mean that it was the funeral chapel. In the section of the Bin Tepé tumulus it will be seen that the large squared stones are continued for some distance outside the door of the cell: this forms in reality a second chamber. I find strong support for my guess in the tomb discovered by M. Tsoundas at Vaphio, in the plain of Sparta, where what M. Perrot designates a "sacrificial pit" is formed

in the ground, and in the doorway leading to the cell.* Offerings to the Chthonian or infernal deities were poured or placed in pits, or in the ground, and these rites would be appropriate for the dead.† This sacrificial pit, or altar, shows that, in some cases at least, the doorway

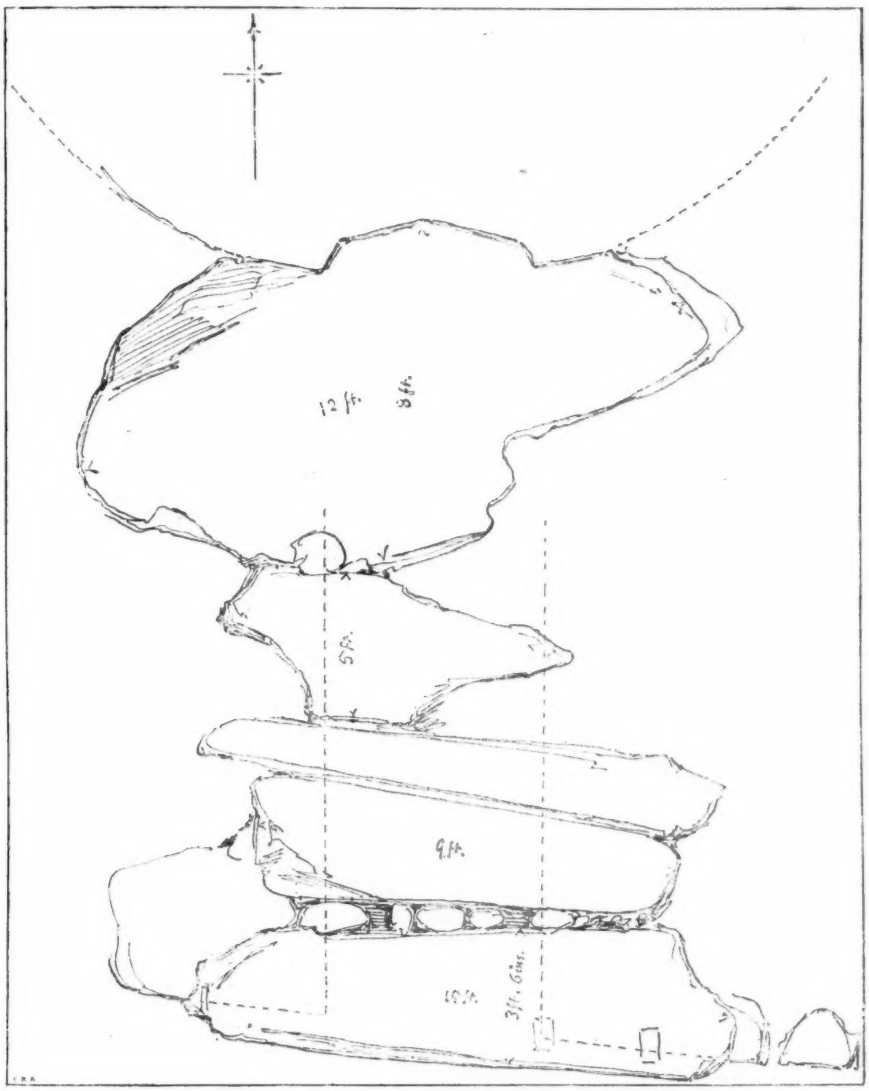



FIG. 7.—SKETCH PLAN OF THE FOURTH TREASURY, MYCENÆ.

of tumulus tombs served the purpose of a chapel for funeral rites. I doubt if this explanation would apply to the "allées couvertes"; it might perhaps to some, but from what I recollect

* See MM. Perrot and Chipiez's *La Grèce Primitive, L'Art Mycénien*, in the English translation of which [vol. i. p. 393] there are plan and section, showing the sacrificial pit, of the Vaphio tomb.—W. S.

† Achilles, at the funeral rites of Patrocles, poured wine upon the ground to the manes (*Iliad*, xxiii. 120).—W. S.

of one or two of these constructions at Locmariaker, in Brittany, my impression is that they were narrow and too contracted to permit of rites being performed in them. However that may be, the guess might explain the purpose of the long passage in such tumulus tombs as the one at Gâvr Innis (Brittany), the Maes-Howe in the Orkneys, or New Grange in Ireland, as well as many others.

In the two smaller treasuries I could perceive no remains of the passage or dromos leading to what may be assumed to have been the doorway. This passage is generally formed of smaller stones than those in the doorway leading into the vault, and if their walls existed they have either fallen in or been removed. The Treasury of Atreus has a dromos 20 feet wide and at least 60 feet in length, the wall rising in height towards the doorway from following the slope of the ground. This wall on each side of the approach, increasing in height as you enter, is a marked feature of almost all chambered tumuli, and is not limited to the Mycenæ examples. In the section of the Bin Tepé tumulus the wall is shown as built with unwrought stones. The Kertch tumuli that I have seen have also this characteristic feature. As already explained, it was the sloping wall of the approach which helped to produce the impression in my mind that the Treasury of Atreus was a tumulus tomb. This in itself would not have been conclusive evidence; but, with other conditions which were visible, it turned out to be correct enough.

The block of stone that closed the entrance to the Bin Tepé tumulus, which was not a door in the usual acceptance of the word, now lies on the ground where it fell when the cell was entered. It is merely a stone plug, and never could have been intended for opening and shutting. This would imply that whatever the ceremonies may have been which took place at the tomb, they were performed on the outside of the cell. M. Spiegelthal explored some of the Bin Tepé tumuli in 1854, and in one he found a stone couch, which would imply that the body was not coffined, but lay on the couch as if resting in the same manner as the person might be supposed to do when alive. The bronze bier found in the Regulini-Galassi tomb at Cervetri indicates the same idea of treatment of the dead by the Etruscans.* The rules in relation to the dead varied very much in each locality, and even in the same locality there were marked differences, owing probably to rank, or to sects, or perhaps to tribes that may have been living together; we must not, consequently, infer that the dead would be dealt with at Mycenæ as in Italy or in Asia Minor.

There appears to be considerable doubt regarding what Veli Pasha found in the Treasury of Atreus. It is most probable that rumour exaggerated every detail.† Schliemann states that he found some old men at Charvati—the village close to Mycenæ—who remembered the exploration, and they at least confirmed one part of the story: the finding of a marble table. If this was not the couch on which the body was originally placed, it goes far to prove that the chamber was fitted up like a house or a palace; and that the corpse would not be in a coffin, but repose in state surrounded by the articles that its dignity may have been supposed to require. If thus uncovered any ritual that had to be performed could scarcely be gone through in its presence. Such a thing would be most incongruous, particularly after decay in the corpse had begun to show itself.

* There are two fine Etruscan sarcophagi in the British Museum, with figures resting on the top. Although in these cases the body would be below in the coffin, the suggestion of placing figures of the deceased as resting on a couch above was probably derived from the older practice of placing the corpse on a couch or bier. If this was the case, it gives us the starting-point of a style of funeral monument that has been followed down to the present day.—W. S.

† In 1879, when I explored the Ahin Posh Tope at Jellalabad, and found a gold relic holder and twenty gold coins in the central cell, the news spread rapidly about the locality. Shortly afterward a friendly Khan made an official visit to the late Major Cavagnari, who was political officer with the army; the Khan inquired if it was true that a golden chest full of gold coins had been found in the Tope. The incident forms a good example of the power of rumour among country folk.—W. S.

The pit-graves that Schliemann discovered underneath "the circle of the Agora," within the Acropolis of Mycenæ, tell of a very different manner of disposing of the dead, for those buried there must have been very important, if not royal, personages; and it is difficult to account for such widely separated modes of interment, and that too in the same town. Time would account for such variations in the mode of burial, and a considerable space of time might be required to explain the great changes that took place; but this is a subject on which I do not feel myself competent to give an opinion. MM. Perrot and Chipiez, the translation of whose work I have been lately reading, state [vol. ii. p. 365] with regard to the treasuries, "It is agreed on all sides that they are later in time than the shaft-graves of the stone circle" —meaning those found by Schliemann in the Agora.

On first seeing the smaller treasuries my impression was that they were the earlier and ruder forms which in time developed into the more elaborate and finished structures. I am still inclined to this idea; but it is not impossible that the very opposite theory may be the correct one, and that they are only the degenerate descendants of the style. There is, however, another supposition equally probable. These smaller treasuries, perhaps, were not the tombs of royal personages, and the rude form of their construction may imply that less wealth was expended upon them; and they may not be either earlier or later in point of time than the larger treasuries. A more extended study of the other tumulus tombs in Greece may assist in the determination of this point.

Although much has been written about these treasuries, or tumulus tombs, it still appears to me that they have not yet had full justice done to them as a most important style in the classification of the architecture of Greece. They have always been written about as exceptional; as structures outside the recognised Orders. When Greek architecture is mentioned, the mind limits its conception of the phrase to what is conveyed by the words "Doric," "Ionic," or "Corinthian." Unluckily, almost nothing remains but fragments of the earlier architecture; there is no witness left to proclaim its former glory, like the Parthenon standing on high. We have to search and burrow into holes and corners to find the few relics of it that still exist; and the best of these can only be seen in a defaced condition, completely despoiled of all outward beauty, which may perhaps explain why this style has been left out of its true position and rank. That these tumulus tombs were numerous in Greece, we have the testimony of Athenæus, who says: "You may see everywhere in the "Peloponnesus, but particularly at Lacedæmon, large heaps of earth, which they call the "Tombs of the Phrygians." The so-called "Treasury of Minyas," at Orchomenus, shows that they were not confined to any one part of Greece. Many have been discovered and some explored lately by M. Tsoundas, showing to what extent these monuments existed, that they were not exceptional, and that in at least one part of Greece they were seen "everywhere."* We now know the high perfection the style reached in the Treasury of Atreus, which was covered with alabaster, porphyry, and other fine stones of varied colours, all most elaborately ornamented. The few fragments found, of which some may be seen in the British Museum, show how good and effective the decorative work must have been. Bronze was also largely used, and we know that the interior was covered with this metal, and no doubt richly ornamented, recalling Homer's description of the brazen abode that Hephæstus, the divine architect, made for himself [*Iliad*, xviii. 370].

The origin of this "treasury" style is interesting as a contrast to the other forms of Greek architecture, which were almost wholly wooden in their first state of existence, while

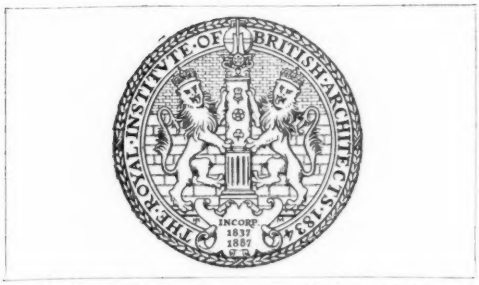
* The description of Athenæus reminds me of the district round Kertch, where in many places the tumuli are so numerous that they give a serrated outline to the heights; in the neighbourhood of Kertch one might truly repeat the words that the large heaps are seen "everywhere." W. S.

this has always been lithic. Its constructive forms could not have been produced except from building in stone. It has always been intimately connected with what we understand under the rather vague term "cyclopean masonry"; in fact, cyclopean building may be considered as forming a part of the style, particularly as they are both associated with the name and the race of Pelops.* In a former Paper of mine it was shown that mud or crude brick, as a building material, produced walls, and that where wood was scarce the roofing was accomplished by means of barrel-roofs and domes; the same material also produced the arch. We have here a striking contrast with the forms evolved from the wooden or trabeate construction. Now the "cyclopean" or "treasury" style began with stone walls, and it produced the arch, the barrel-roof, and the dome. The Treasury of Atreus still remains with at least its constructive parts intact, and its splendid dome is there as a witness for one of these forms; the galleries in the walls of Tiryns contain what may be accepted as a rude form of the barrel-roof; and the triangular space over the doorway of the Treasury of Atreus, and the Gate of Lions, at Mycenæ, is only a straight-lined arch. That these are all on the corbel, not the keystone, principle, is a detail that does not touch the point under consideration. Walls could be made to support such works upon them, but wooden posts could not. I am aware that in later times domes have been erected on columns; but such designs did not belong to the early developments of wooden architecture. The two styles were thus perfectly distinct; the perpendiculars were different; and the result was that the covering over of spaces, both in form and principle, was widely separated. The lintel was common to both styles; the magnificent stone over the doorway of the Treasury of Atreus, as well as the covering stones in the smaller treasuries, are sufficient evidence.

One feature appears to have been common to both: that was the large employment of metal. It is generally understood that the palace in ancient Greece was constructed of wood; and we have Homer's description of the palaces of Menelaus and Alcinous, in which one is inclined to suspect that there may exist a slight touch of the poet's licence; but still there must have been some basis on which he founds his account. In the palace of Menelaus there was not only "the shining of brass throughout the resounding house," but there were also gold, amber, silver, and ivory [*Odyssey*, iv. 73]. The palace of Alcinous had "brazen walls," which were "firmly built each way"; and it had a "brazen threshold," on which stood "silver pillars," with "golden doors" [*ib.* vii. 87]. In the Treasury of Atreus we know that metal had been used to a considerable extent, and that almost the whole of the interior was covered with bronze. The use of metal in the "treasury" style may have been borrowed from the wooden style, in which it probably originated, for where wood is employed metal is often used for the purpose of clasping or binding; and when wealth exists and ornament is desired, this material becomes decorative.

In conclusion, I may refer to the existence in India of domes similar to that of the Treasury of Atreus; and to structures bearing some resemblance found in other parts of the world. Not long ago there appeared a short article of mine upon "A Primitive Mode of "Construction still practised in the South of Italy" [JOURNAL, Vol. I. Third Series (1894), p. 313]. It referred to a rude kind of dwellings, called "truddhi," still built with stones in fields, with round vaulted domes, the continuation of a very old form of construction showing that such domes had existed long ago in Italy. These structures are allied to the Núraghs of Sardinia and Majorca. The brochs of the north also bear some points of resemblance; the Maes-howe in the Orkneys, and other chambered tumuli of a similar kind, have all touches of the same family likeness.

* I use the word "treasury" here because it will be easily understood. The style has been called "Pelasgic," but traditionally it is "Pelopian," which might perhaps be the best name to distinguish it by.—W. S.




9, Conduit Street, London, W., 22 *August* 1895.

# CHRONICLE.

## L'INSTITUT NATIONAL DE FRANCE.

### Centenary of its Foundation.

This day, one hundred years ago, the National Institute of France was founded by a decree of the first French Republic, for the purposes, as it was officially declared about two months later, of (1) improving science and art by uninterrupted research, the publication of new discoveries, and correspondence with learned societies abroad; and (2) of following, in conformity with the decrees of the *Directoire*, scientific and literary labours of general utility. The National Institute, afterwards modified and enlarged by the admission of five restored academies—of Literature, Archæology, Science, Fine Art, and Moral and Political Science—has maintained, under the name of L'Institut de France, a place in the world for the space of a century such as no other body devoted to the promotion of similar objects has been able to hold at any period of History. The heartiest congratulations are due from Englishmen, at home and beyond the seas, to that distinguished company on their centenary; and were the Royal Institute of British Architects now in session it is certain that a congratulatory message would be ordered to be sent to the Palais de l'Institut of a character more authoritative than is possible in a note of this kind. Suffice it, on the hundredth anniversary of a great and auspicious event, to offer an expression of the most sincere felicitation to Messieurs Daumet and Garnier, Baron H. von Geymüller, Professor Commendatore Lanciani, Sir Frederic Leighton, Sir John Millais, Messieurs Müntz, Naville, Normand, and Révoil, the Chevalier da Silva, Mr. Alma Tadema, Monsieur Vaudremer, the Marquis de Vogüé, and Mr. Alfred Waterhouse, all of whom form part of the Institut de France and, at the same time, are members of the corporate body of British Architects, three of them having been recipients of the Royal Gold Medal.

### The Modified Reservoir at Philæ [p. 535].

Not the least of the services done for Literature, Archæology, Science, and the Fine Arts by the Institut de France is its great work on Egypt;* and it is gratifying to know that the British Minister in Cairo defers in matters connected with the arts to the administrative authorities—all of whom are French—of the Egyptian Museum of Antiquities, even going so far, it is averred, as to discourage the official appointment of Englishmen to any works of archæological research and survey in Egypt. The fears entertained in England last year of the possible engulfment of the island of Philæ by the construction of a dam across the Nile at Assouan were shared by architects and archæologists in Paris, though less was said and done there at the time than in London; and it was a great satisfaction to learn from an official memorandum, published in *The Times* of the 27th November 1894, that the Egyptian Department of Public Works had so modified its original intentions as to reconcile the interests of Egypt with those of science and archæology. By the improved scheme, portions only of the island of Philæ would be submerged, and the rest of the Nubian monuments would remain untouched [p. 77]. Mr. Somers Clarke, F.S.A., who was a member of the Commission invited to visit Philæ and consider the best means of saving the island, gave a description [p. 535] of what had been done to effect the desired end; and concluded his report with the assurance that a very real effort had been made to do as little harm as possible to the historical monuments threatened by the original scheme. Nevertheless, the Parisians are not satisfied, and two of the academies in the Institut de France have addressed communications on the subject to the French Minister for Foreign Affairs, M. Hanotaux. Lastly, the Société centrale des architectes français has forwarded, through its President, the following protest:—

*À M. le Ministre des affaires étrangères.*

Monsieur le Ministre,—Une compagnie anglaise ayant l'intention d'établir sur le Nil un barrage à l'île de Philæ, barrage ayant pour effet d'engloutir cette île dans le fond d'un réservoir, l'Académie des inscriptions et belles-lettres, mise en éveil par M. Maspéro, a par deux fois protesté contre ce projet, et a émis le vœu qu'il ne soit pas donné suite à une opération néfaste, qui supprimerait le joyau égyptien, ferait disparaître un motif des plus pittoresques et ensevelirait les superbes ruines qui font l'admiration de tous.

Préoccupée de cet outrage à la beauté, l'Académie des beaux-arts, dans sa dernière séance, s'est associée à l'unanimité à ce vœu, dicté par une sincère conviction, vœu que d'ailleurs, de leur côté, les sociétés britanniques d'archéologie avaient aussi énergiquement formé.

A son tour, la Société centrale des architectes français a cru de son devoir de joindre sa protestation aux requêtes déjà formulées, et, en assemblée générale, elle a décidé qu'elle s'adresserait respectueusement à vous, Monsieur le

* *Description de l'Egypte, ou recueil des observations et des recherches qui ont été faites pendant l'expédition de l'armée française, publié par ordre du Gouvernement.* Text 10 vols. fo. Plates 13 vols. fo. Paris 1809-22. Presented to the Library by the late James Fergusson [*F.*].

ministre, pour vous prier de vous intéresser à la sauvegarde de telle merveille et, si vous le jugez convenable, d'agir devant qui de droit afin d'empêcher cet acte de vandalisme.

Du reste, Monsieur le ministre, vous êtes certainement informé de ces faits désastreux, et nous ne doutons pas que, même avant d'en être sollicité, vous n'ayez déjà songé aux mesures à prendre pour éviter un réel sacrilège. Néanmoins, la Société centrale des architectes français, en vous soumettant ses doléances et ses désirs à la suite des souhaits si hautement exprimés par l'Institut, a voulu vous montrer, Monsieur le ministre, combien elle aussi est émue par les rumeurs qui se propagent au sujet de la mutilation de l'île de Philæ et combien ses regrets seraient amers si l'opération projetée était mise à exécution.

Nous espérons, Monsieur le ministre, que vous nous pardonnerez de venir à vous en cette circonstance, et que vous voudrez bien accepter la délicate mission que nous avons l'honneur de confier à votre bienveillance, dans l'intérêt de l'art, dans celui de l'histoire et du respect dû aux monuments du passé.

Veuillez agréer, Monsieur le ministre, l'assurance de nos sentiments respectueux.

*Le Président de la Société centrale des architectes français, membre de l'Institut,*

CH. GARNIER.

Since the foregoing was sent in, a letter on the subject has been addressed to the President, Mr. Penrose, by a French architect, M. Hippolyte Boussac, who appears to have thought that the project of constructing a reservoir in the Nile at Assouan had been entirely abandoned; and who now complains that Italian workmen have been sent to Philæ in contravention of a promise made by the authorities. M. Boussac, who has just returned from Egypt, therefore urges the British architects to unite with their brethren of France in opposing an act of vandalism which, he maintains, is imminent. The President, in his reply forwarded from Cornwall, where he has been staying, gave a short account of what had been done by the British learned societies to prevent the entire submergence of Philæ, adding that they were satisfied with the modified scheme, which secured so large a part of their aim. "What now "appears to be of the greatest consequence," said the President in his letter to M. Boussac, "is to "keep the Egyptian Government to its promise, "and not to allow the barrage to be raised above "the level agreed to;" adding that if M. Hanotaux's amicable communication with Lord Salisbury were to ensure the loyal observance of this condition, British architects would, he was confident, be profoundly thankful.

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### The old "Broodhuys," Brussels.

The Burgomaster of the Belgian capital, Monsieur Ch. Buls [*Hon. Corr. M.*], has presented to the Library a photograph of the old Maison du Roi (in Flemish "Broodhuys," and in English "Breadhouse"), which has been recently opened by the City of Brussels, its restoration having just been completed. M. Buls accompanied the gift by a letter, addressed to the President, on the 24th ult., in which he has given a most interesting description of the building, as follows:—

Après une longue et patiente restauration qui a duré 20 ans, la Maison du Roi vient enfin d'être terminée et forme un des plus beaux ornements de la Grand'place de Bruxelles, déjà si célèbre par son Hôtel-de-Ville gothique et ses pittoresques maisons de corporations, construites après le bombardement de 1695. L'édifice qui s'appelle en français Maison du Roi et en flamand Broodhuys (*Breadhouse*) doit son premier nom au fait que des tribunaux chargés de veiller aux intérêts de la Couronne y avaient eu leur siège, et son second nom à ce qu'il avait été autrefois une halle au pain.

Les plans de ce petit palais durent être élaborés vers 1514, après que la halle au pain se fût écroulée de vétusté. Ils sont dus à trois architectes: Antoine Keldermans, qui mourut alors que les fondations étaient à peine établies; Louis Van Bodeghem lui succéda en 1516; mais, accablé de travaux, il dût abandonner la direction de la construction à Henri Van Pède, architecte de la Ville. Celui-ci y travailla jusqu'en 1525.

A la fin du XVI$^{e}$ siècle, l'édifice fut surmonté de cinq lucarnes en style de la Renaissance. Le bombardement de 1695 endommagea gravement le bâtiment. Il subit probablement alors une restauration; plus tard en 1767, la toiture et le pignon furent remplacés par un lourd toit à la Mansard avec deux lucarnes en œil-de-bœuf et un frontispice garni d'un cadran solaire, le tout dans le goût de l'époque.

En 1875 l'édifice menaçait de nouveau ruine; les pignons latéraux avaient été renforcés par un mur en briques qui en cachait les fines nervures gothiques et la riche décoration.

L'Administration communale, qui s'était rendue acquéreur de l'édifice, en confia la restauration à son architecte, M. V. Jamaer, en le chargeant de rendre à l'édifice son aspect primitif. Les sondages qu'il fit exécuter permirent de constater que les pilotis sur lesquels reposait la construction, étaient pourris et qu'une réédification totale s'imposait; la partie consommée des pilotis fut rasée et une plate-forme de béton reçut les fondations de l'édifice. On pouvait voir, entre le rez-de-chaussée et le premier étage et au-dessus de celui-ci, la naissance de nervures indiquant que, dans la pensée des architectes primitifs, deux balcons superposés devaient orner la façade. On avait découvert dans le pavement de la place les bases préparées pour recevoir les colonnettes qui devaient supporter ces balcons; un ancien compte de la Ville portait une dépense pour le modèle de la bretèque couronnée d'un clocheton, qui devait faire saillie au centre de la Maison du Roi et contenir le grand escalier.

Ces données, quelques vieilles gravures, les motifs fournis par les pignons latéraux débarrassés de l'empâtement de briques qui les dissimulaient, des éléments empruntés à l'Hôtel-de-Ville d'Aude-

narde construit par Van Pède, permirent à M. V. Jamaer de reconstruire un édifice dont la décoration en style gothique fleuri du XVI^e^ siècle doit se rapprocher beaucoup de la conception originale des trois premiers architectes. Un coup d'œil jeté sur la photographie ci-jointe en dira plus qu'une description détaillée. L'ossature fondamentale est en pierre bleue d'Ecaussines, sur ce fond sombre se détachent, en pierre blanche, les réseaux qui ornent les panneaux des balcons ; les nervures des voûtes des balcons sont aussi en pierre blanche sur fond de briques rouges. Les statuettes sont en bronze doré. Le clocheton contient un carillon.

La Maison du Roi renferme à son deuxième étage un musée historique communal ; au premier étage et au rez-de-chaussée est installé le service des finances de la Ville ; mais il entre dans les intentions de celle-ci d'attribuer tout le bâtiment au Musée.

L'Administration communale poursuit la restauration et la conservation de toutes les maisons de la Grand'place reconstruites après le bombardement de 1695, et quand cette œuvre sera achevée la Grand'place constituera certainement un ensemble décoratif sans rival en Europe.

**Mr. Alma Tadema** [*H.A.*], **R.A., on Art Training.**

Mr. Alma Tadema's speech on the occasion of the distribution of prizes at the National Art Training School at South Kensington on the 25th ult., which has been published in various forms, is so admirable in its teaching that members will be glad to preserve it in their JOURNAL. A corrected report here follows :

Art teaching is a field in which I have had some experience, for I have been a frequent visitor to the Royal Academy schools during the last twenty years. True, my work there was confined to teaching drawing and painting from the life model ; but that is the highest in art, by which all the other branches are guided. Did not the Greek art, the highest of all, emanate principally, if not completely, from the study of the human figure ? The human figure contains the completest curves and balances in lines that exist, and is consequently the best guide for all art, and therefore it is a great advantage for an art teacher to know the human figure as completely as possible.

" To know "—a great word ! who is there that knows enough ? And still so many of the younger ones of to-day despise knowledge in art. Of course, knowledge alone is not art ; but, then, art without knowledge is incomplete and unsatisfactory, and, if I insist on this, it is because I am addressing the future teachers of art throughout the British Empire—the students of the National Art Training School, who are the future missionaries of our art throughout the kingdom and the colonies. You will understand the importance of this when I tell you that some 500 have already passed this school and are now teaching the new generations the traditions of art.

I should like to insist on the word " traditions," for art is not spontaneous. Art is not so much the outcome of an individual brain as the continuity of experiences, which concentrated in one specially gifted brain produce those incomparable artists who are the crowning features of their time and country. Art is, with literature and music, the flower of civilisation. Like civilisation it is a development of what was done before. Egyptian and Babylonian art shows the origin of the Greek forms as developed under new conditions. Roman art was the outcome of the Greek, and the decayed trunk having been grafted with Oriental experience produced Byzantine art. The Norman art was believed by their architects to be the continuation of Roman architecture, as it was the dream of Charlemagne and later German emperors to reconstruct the Roman Empire, until with the new religion came the neglect of old civilisation. The fresh blood and the new contact with the Orient produced the Mediæval art, the beautiful Northern flower that gave us our cathedrals. Little by little things forgotten were reinvented, and antiquity asserted itself once more, this time grafted on the Mediæval art, and our modern times begin. To speak of days near to us, we know that Constable and Turner are the fathers of modern French landscape painting ; and I remember well in 1870 hearing Daubigny, the great French painter, say, " Without those great men " we should not exist." Géricault, the father of Romanticism in France, has studied in England the art of the Reynoldses and the Gainsboroughs, who themselves believed that they had derived much from Van Dyck, as the last words of Gainsborough prove.

Therefore, go on in study, in order that you may know much of what has been done, in order that you may be able to teach the real art, which is tradition, refreshed by modern feeling and temperament ; and the world will gain, and you will gain the world's gratitude. If I insist on this it is because I see all around us a kind of painting produced and praised as the highest aim of art, where one cannot distinguish an apple-tree from a pear-tree, an Ionian cap from a Corinthian—a world of mist, a regular bubble-and-squeak, which somehow does not satisfy me. I have heard a youngster say that he was saved by the visit he paid to the painters at St. Ives, and that now he paints the mast of a ship with horizontal touches, and not, as everybody else had always done, with a stroke perpendicular, according to the grain of the wood. Surely art is higher than painting with points or spots or trying to imitate Berlin woolwork, because nobody has ever painted in that way before ! And teaching must go deeper into the study of the human figure than time studies can teach. But you are here in a better *milieu*. Serious work is

still done here, as I was glad to see yesterday when, as one of the trustees of the Royal Institution Scholarship Fund, we awarded the scholarship of sculpture and of engraving to pupils of your schools; and when, out of the four successful painters, three were from your schools, of which one is the Nottingham School, if I remember aright, and the fourth was gained by a student of the Royal Academy who began his studies in your schools. But the great work of South Kensington is its museum, and its teaching of what is now generally called the minor arts. I well remember the Paris International Exhibition of 1878, where there was an English house which took the French quite by storm and left a decided mark on their productions afterwards.

The influence of the minor arts is, perhaps, greater than the one exercised by pictures and sculpture and architecture, because it goes deeper into the daily life of the people. The weavings of and prints on cloth, carpets, hangings, wall decorations, &c., surround us every moment of our lives, and we form our standard of judgment in art matters very much from them. When Mr. Whistler painted the whole of his dining-room canary-yellow, and had hangings, carpets, and furniture to match, the yellow in which he moved must have had a great influence upon his eye. When I found that the black Pompeian decorations of my early Antwerp studio made me paint my pictures too heavy I had my next studio painted red. Then they got too hot. So, moving to Brussels, I painted my studio light green: and, when I arrived in London, my first studio was blue and green. The influence was such that you can classify my pictures according to the influence produced upon them by the surroundings. If such is the immediate effect, it stands to reason that the influence exercised by surroundings upon the taste of the man who lives daily among them must be equally great. Therefore, do not underrate the value of the so-called minor arts.

Art is everywhere, and the more it is considered the better for every one. The more you take your vocation *au sérieux* the better it will be; and the more you know about it the better it will be for those who have to learn from you. To know in art is of the greatest necessity. If you know how a plant grows you will be able to draw it. If you do not know you will mistake forms for what they are not; for nature is much too complex and far too complete for an untrained eye to understand without knowledge. For instance, a shepherd knows every individual in his flock, though I am afraid that few of us can distinguish one sheep from another. A gardener in midwinter will tell you which is an apple tree and which is a pear tree. How many landscape-painters are there who would be able to do the same? You must not misunderstand me. I do not mean that a work of art must give everything the artist can see. What is required is that every touch, every line, slight as it may be, must render the feeling of what it has to represent; and that is not to be done without the necessary knowledge. Some say anatomy is superfluous; but is it possible to find anatomical errors in the masterpieces of the Greeks or of the Italian Renaissance? So they must have known anatomy, as it is impossible to be correct without knowledge. I defy any painter to paint a view of a building without any knowledge of perspective, or to draw a hand without any knowledge of the bones that are within. When a Velasquez summed up in after life with a few well-understood touches, and was able to give us those incomparable masterpieces, it was because he had begun so very elaborately. In his picture, "The Water Carriers," belonging to the Duke of Wellington, even the drops of water running down the pot are finished to the utmost. And so in Rembrandt's so-called "Night-watch," when looked at quite near, you can well make out the pattern of the lace on the yellow man in the centre, and the drum to the right is rendered so minutely that not a nail fails. Everybody knows by now, through the interesting photographic researches of Mr. Muybridge, that the horses on the Elgin Marbles are the only ones of which the action is true. Are they not the more beautiful for it? And are not those horses preferable to the rocking-horses of the seventeenth and eighteenth centuries? How could a writer give in a few words the deep thoughts and feelings he succeeds in giving if he did not know them thoroughly? If a Holbein succeeds in giving, with but an indication of a line, more than another artist can do, it is because he knows more about it. To know enables one to render, not to know induces one to blunder. To know enables one to teach. Who can teach without knowing?

### The late Richard Morris Hunt [*Hon. Corr. M.*], *Royal Gold Medallist* 1893.

The name of Richard Morris Hunt, whose death, it is regretfully announced, occurred on the 31st ult., will long remain associated in the mind of every American with much that is most progressive and beautiful in the architecture of his country. Born at Brattleboro', State of Vermont, in 1828, the son of the Hon. Jonathan Hunt, Member of Congress, he came of a worthy New England family, the later generation of which appears to have been endowed with artistic talent of no ordinary degree. His brother, the late William M. Hunt, achieved the highest fame in America as a painter; he himself has been styled by Baron H. von Geymüller "the Brunellesco of the United "States." His education was commenced at French's School, New Haven, Conn., whither his mother removed on his father's premature death, and was continued at the Boston High School and Latin School.

In 1843, when fifteen years of age, he accompanied his family to Europe, and was placed in a school at Geneva, where he began the study of architecture under Samuel Darier. From Geneva he went to Paris, and became a pupil of Hector Lefuel, entering the École des Beaux-Arts in 1845. Here he remained for some seven years, and on leaving the school he set out on an extensive tour, travelling through Europe, Asia Minor, and Egypt. Returning to Paris in 1854 he received from the French Government the appointment of Inspecteur on the works of the new buildings connecting the Tuileries and the Louvre. His old master, Lefuel, having been appointed architect in succession to Visconti, Hunt was put in charge of the Pavillon de la Bibliothèque, opposite the Palais Royal, and had the honour of making, under Lefuel, all the studies and working drawings of that Pavillon.

Mr. Hunt returned to the United States in 1855, being then only twenty-seven, but having a mind stored with knowledge of the most famous architectural monuments of the Old World, and with a hand which had received practice in the art centre of the world, under the teaching and guidance of one of the most famous of contemporary architects. On his arrival in America he was engaged for about six months assisting the late Thomas U. Walter in preparing plans for the completion of the Capitol at Washington, and afterwards entered into practice on his own account in the city of New York.

Although comparatively rich, both by inheritance and by marriage, he worked assiduously and ardently in his profession, and designed and carried out an immense number of buildings and monuments in all the principal cities of the country. To mention only a few: the Lenox Library in Fifth Avenue, New York, the *Tribune* building in Printing-house Square, Mr. W. K. Vanderbilt's house in Fifth Avenue, the Osborne House in Park Avenue, the hospital near Third Avenue, the pedestal to Bartholdi's Statue of Liberty, the Vanderbilt Mausoleum on Staten Island; among country houses, the so-called Marble Palace at Newport belonging to Mrs. W. K. Vanderbilt, and the magnificent Goelet House, reputed to have cost over a quarter of a million sterling. At Asheville, North Carolina, he was engaged at the time of his death in the completion of an immense house for another of the Vanderbilt family. His practice was singularly varied in range and in style, a characteristic example being the Administration Building at the Chicago Exposition, one of the most pronounced successes of that great architectural display.

Early in his career he took an active and a prominent part in founding the American Institute of Architects. He succeeded the late R. M. Upjohn and Thomas U. Walter as President; and when the institution was reorganised he was again elected its President. His vital and organising energy was further displayed in the opening of an architectural atelier for students on the French system, thus demonstrating in a practical form the influence of his Parisian studies. In this studio worked many of the leading architects of the United States—such men as Professor Ware [*Hon. Corr. M.*], George B. Post, Frank Furniss, Henry van Brunt, and Charles Gambrill.

Hunt's refined taste, educated judgment, and cosmopolitan experience made him in great request at the International Exhibitions. He served as a Member of the Fine Arts Jury at the Paris Exposition of 1867, and at the Centennial Exhibition in Philadelphia in 1876. At the Columbian Exhibition at Chicago in 1893 he was a Member of the Fine Arts Jury of Selection, and President of the Board of Architects. His distinguished attainments received conspicuous recognition abroad. In 1882 the French Government decorated him with the Cross of the Legion of Honour; and later, the French architects, who seem to have followed his career with an affectionate interest which was fully returned on his part, made him Corresponding Member of the Institut de France in the Académie des Beaux-Arts. He was an Hon. Member of the Société Centrale des Architectes Français, and of the Architects' and Engineers' Society of Vienna; and an Academician of St. Luke at Rome. The Harvard University honoured him with the degree of LL.D., the first ever conferred by the University on an artist. In 1886 he was elected an Hon. Corresponding Member of the Institute, and two years ago, it will be fresh in the recollection of many, he was invested with the Royal Gold Medal for the promotion of architecture, the gift of Her Majesty the Queen—the first ever presented to an American. The Presidential address delivered on the occasion by Mr. Macvicar Anderson, which gave a short but excellent account of the late Mr. Hunt's professional career, may be found in *The R.I.B.A. Journal*, Vol. IX. N.S. pp. 425–28.

### The late Henry Clutton [*F.*], A. E. Johnson [*F.*], and George Knowles [*F.*].

The death, at the age of 81, of Mr. Clutton, of Hartswood, which occurred on the 17th inst., is announced. He was elected an Associate in 1838, and a Fellow in 1850. Mr. George Knowles, of Bradford, who died on the 26th ult., was elected a Fellow, 3rd February 1862, his nomination paper having been signed by the late Professor Cockerell, R.A., the late Mr. John Gibson, and Mr. F. C. Penrose. The decease of one of the earliest of the Soane Medallists, Mr. Arthur Ebden Johnson, of Melbourne, who gained the Medallion in 1843, is also announced. He won the Gold Medal of the Royal Academy in 1845; and was afterwards in partnership for a few years with the late Sir Horace Jones. During the earlier part of his pro-

fessional career, he was engaged, for fourteen years, in the Department of Public Works, Melbourne, to a considerable extent in connection with the Post Office erected in that capital. Since then he has carried on a large practice, and has designed and superintended the erection of numerous buildings, mercantile and private, in Melbourne. He was elected a Fellow in 1884.

### The Healthiness of "Flats."

A year or two ago medical men seemed to look with disfavour on the increasing popularity of the huge edifices in London designated "Flats." It was said that the aggregation of a number of families in a block of buildings on a circumscribed area must result in a vitiated atmosphere and consequent ill effects; and that the risk of contagion in cases of febrile disease would be considerably heightened. But it is satisfactory to learn, from a recent report on certain groups of artisans' dwellings scattered throughout the metropolis, that the death-rate in these buildings amounted to only 15·89 per thousand, as compared with 17·8 for the whole of the metropolis.

### "Academy Architecture."

*Academy Architecture and Annual Architectural Review*, which has now reached a seventh year of publication, has deservedly established for itself a permanent footing not only as a valuable book of reference, which will increase in value as the years go on, but as an interesting souvenir of each year's exhibitions of architectural drawings. Mr. Alexander Koch, its editor, has presented to the Institute the volumes for the past four years—1892-93-94 bound together, and 1895 separately. They contain (1) a selection of the most prominent architectural drawings hung at the Exhibitions of the Royal Academy, the Royal Scottish Academy (Edinburgh), and the Glasgow Institute of Fine Arts; (2) a review of interesting architectural subjects carried out or designed during the last few years in England and abroad. Each volume averages over 150 pages of illustrations, admirable reproductions in miniature of the original drawings, and well printed on good paper. There is also a useful index. The publishers ["Academy Architecture," 58, Theobalds Road, London, W.C.] promise towards the end of the present year a supplemental volume; and as more time is available for its preparation than for the annual volume, still better work is promised.

### The Liverpool School of Architecture.

One of the most gratifying results of the educational movement which, during the last quarter of a century, has taken place in this country is the establishment of a School of Architecture and Applied Arts in Liverpool. The School is the outcome of an understanding between University College of that city and the Municipality, by which the former gives its Chair of Art to the Professor of Architecture, and the City of Liverpool grants an annual sum of money from the amount allotted for technical instruction. The Board of Direction consists of Mr. Hartley [*F.*], a Past President, and Mr. Culshaw [*F.*], the President, of the Liverpool Architectural Society, the former being Chairman; the Lord Mayor of Liverpool and Alderman Philip H. Rathbone; Sir William B. Forwood; Mr. W. E. Willink [*A.*], M.A. Cantab.; Mr. W. Wardlaw Laing, Past President of the Liverpool Academy of Fine Arts; Mr. J. Sirett Brown, President of the Liverpool Master-Builders' Association, and Mr. G. Johnstone, representing the Building Trades' Association; the Director of the School, Professor F. M. Simpson; and six others. The inauguration of the School took place last May, when an address was delivered by Mr. T. G. Jackson, A.R.A., on the Training of Architects. This scholarly essay, an abstract of which was given in the local newspapers and in the London professional journals, has recently been published [D. Marples & Co., Printers, Lord Street, Liverpool]; and is reprinted in the JOURNAL—its opening sentence and two final paragraphs, with a quotation, excepted [p. 636].

## REVIEWS. XXX.

(84.)

### ST. JOHN'S, CLERKENWELL.

*St. John's, Clerkenwell, with Historical Notes and Letterpress Description of the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England. By John Underhill. Together with etched plates and other illustrations by Wm. Monk, R.P.E. Large folio. Lond. 1895. Price £2. 2s. [Cadbury Jones & Co., 60, Haymarket, S.W.]*

The historic and descriptive letterpress of this attractively got-up and admirably illustrated production was written by the late John Underhill, of the *Pall Mall Gazette*, just prior to his decease, and dedicated to T.R.H. the Grand Prior and Sub-Prior (the Prince of Wales and the Duke of York) and to the Grand Priory of the Order of St. John of Jerusalem in England.

According to the preface, "the principal object "of the work is to describe how the mighty Order "of St. John of Jerusalem came into existence; "how it fulfilled in this country and abroad the "purposes for which it was called into being; how "its members nourished the sick, succoured the "helpless, and fought for the Faith; how the "imposing fabric at Clerkenwell was destroyed, "first by a mob of rebels, and then, after having "been rebuilt, by the Lord Protector of a King; "how the Knights, after entertaining more than "one English Sovereign, were disbanded by "another; and how, finally, after many strange "vicissitudes, the Order was resuscitated, the re-"mains of the ancient Priory repaired, and the "good work initiated nearly eight hundred years ago

"again taken in hand under the patronage of the "reigning Sovereign and under the auspices of "the Heir to the Throne." There is, however, a good deal more than this in the work. An interesting account is given of St. John's Gate and the Church Crypt, and there is an agreeable chapter on the historical and literary associations clustered round these sole remaining relics of the far-famed Priory which once occupied the site of that quarter of the now unlovely neighbourhood of Clerkenwell. Not before it was needed was the old Gateway restored some two years ago. It had passed through many vicissitudes, having been in turn a storehouse, a printing-office, a lodging-house, and a tavern. Once again it has become the headquarters of the Order to which it belongs.

Mr. Monk has done his portion of the work well. The illustrations, and especially the etchings, are excellent, and do great credit to the artist and the printers. Of the etchings there are five altogether, depicting St. John's Gate, the Council Chamber, St. John's Church Interior and Exterior, and the Crypt, showing the three bays of the Norman church. The publishers have evidently spared no expense in the production of this interesting monograph of a most fascinating subject.

(85.)

## IMPERIAL LONDON.

*La Construction des Villes: Règles pratiques et esthétiques à suivre pour l'élaboration de plans de villes. Rapport présenté au Congrès International des Ingénieurs de Chicago*, 1893, *par J. Stübben, Conseiller Royal d'Architecture à Cologne. Traduction de Ch. Buls, Bourgmestre de Bruxelles. Large* 8*o. Brussels*, 1895. [*E. Lyon-Claesen, Editeur, Bruxelles.*]

*The Architectural Record, Vol. V. No.* 1, *September* 30, 1895: "*Architecture in London*," *by Barr Ferree. Price* 25 *cents.* [*Record and Guide Press*, 14–16, *Vesey Street, New York, U.S.A.*]

*The Quarterly Review, No.* 363, *July* 1895: "*Londoners "at Home.*" *Price* 6*s.* [*John Murray, Albemarle Street, London, W.*]

A distinguished patriot, who is now one of Her Majesty's Principal Secretaries of State, delighted an audience of 5,000 Londoners, some short time ago, by showing them what the Municipality of Birmingham had been able to do for that community of 450,000 inhabitants, in the common interests of all. The Municipality carried on a great co-operative undertaking in which every citizen was a shareholder, and the dividends were payable in the better health, the increased comfort, the recreation and the happiness of the whole population. The Mayor of the town was its first citizen, and his Council did all the work that was done in London by the vestries, all that was done or attempted to be done by new County Councils. This Council of Birmingham maintained, for the common benefit of the citizens, an art gallery and two museums, a great central library and eight lending libraries, five baths and wash-houses, fourteen parks and recreation-grounds, a technical school, a hospital for infectious diseases; and it had the control and possession both of the water-supply and the gas-supply of the town. This Council had reconstructed an entire district of the town; and it held, on behalf of the citizens, estates in the town which were worth two millions sterling. Yet these possessions belonged to barely half a million of people on an area no larger than the Tower Hamlets in which the orator, Mr. Chamberlain, M.P., was then speaking.* His object was to prove that, by a system of decentralisation, and by that system alone, similar benefits might be conferred on London, which was ten times the size of Birmingham. Indeed, it might be so divided as to consist of ten Birminghams, each with its Mayor and Corporation. By such a division the work of improving, developing, reconstructing the Metropolis in the interests of the Londoners themselves, so far as each division is concerned, would become possible; nay more, the task would be absolutely easy compared with that now attempted by the London County Council. The Metropolis, already a colossus among capital cities, would then become a Power consisting of ten self-supporting communities—it would be, really and truly, "Imperial London."

And when one tries to realise what those two words mean—when one attempts to treat London in accordance with the methods of amelioration and development adopted by even Vienna and Paris, the case appears hopeless, as much from differences of climate and people as from traditional custom. But, in these matters, there is so little system or organisation within our own shores and so much beyond them, as exemplified in the progress made of late years in the great Continental cities, that something is always to be learnt by a diligent perusal of foreign treatises on the laying out of cities and their general construction; more especially of those written by men who are practically engaged in the control or in the design and supervision of such works.

Monsieur Ch. Buls [*Hon. Corr. M.*], the author of that admirable essay entitled *Esthétique des Villes*,† which appeared in 1893, has recently translated into French a Paper on the arrangement and construction of towns, written by Herr Stübben of Cologne, and presented to the Conference of Engineers held at Chicago during the period of the Great International Exhibition in that city two years ago. No one is better fitted than M. Buls to popularise, in the one language still universal in Europe, the views of Herr Stübben upon a subject which the Burgomaster of Brussels has himself treated with a breadth of view and knowledge of detail that

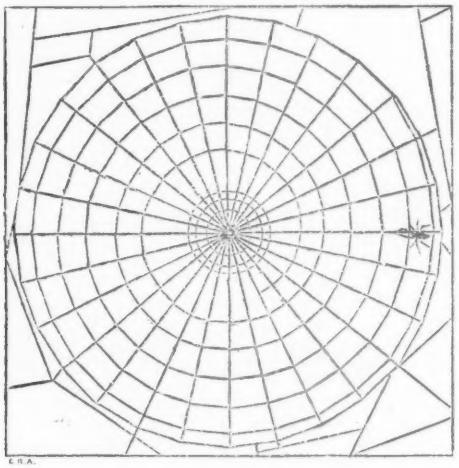
* Extracts from the speech are given, pp. 251, 252.

† See "The Sentiment of Beauty in Towns," a review of the *Esthétique des Villes*, in JOURNAL, Vol. I. Third Series (1894), p. 567.

might have satisfied Viollet-Le-Duc — making many of us in London envy the Belgian metropolis its possession of a Chief Magistrate so competent to advise and control the architects and engineers of his municipality.

Herr Stübben is the author of the volume bearing the title "Der Städtebau," forming part of the *Handbuch der Architektur*,* published by Herr Arnold Bergsträsser. His Chicago Paper is taken from that volume, which is a complete and methodical study of everything appertaining to the construction of cities. The author brought to this work a specially acquired experience, having been summoned to Cologne in 1880 to carry out a plan he had prepared for the extension of that city; and being also the author of schemes for the enlargement of Aix-la-Chapelle, Dresden, and Vienna. Herr Stübben, moreover, has furnished plans for the extension of many other towns at the request of their respective municipalities.

Perhaps I may be permitted, if only on account of a coincidence which will be seen in due course, to look back into the TRANSACTIONS of the Institute for a Paper on "The Laying-out of Cities," read by the late Mr. J. B. Waring [*F.*],† just two years after the great fire of Chicago, which occurred in 1871, when the author laid out on paper a new city on what he called "an entirely "new plan." The principle of it was the web of the "geometrical spider," a diagram of which he



gave, and by which he attempted to show that the quickest way of reaching the centre from any given point was therein clearly obtained. Mr. Waring then communicated a portion of a Report he had forwarded to the Mayor and Corporation of Chicago, as follows:

* Darmstadt, 1890. In the Institute Library.

† TRANSACTIONS 1872-73, pp. 141-145.

"The main plan is to be on concentric circles, or rather semicircles, divided into sections by radiating streets and subdivided into wards, to be provided with means against fire, and sanitary arrangements complete in each section respectively, corresponding to our old system of wards or guards. In rebuilding the city advantage might be taken of a combination of squares, crescents, terraces, boulevards, and streets, so as to produce the greatest pictorial effect. The houses might have colonnades on the lower storey, as at Bologna, forming comfortable walks in summer or winter; whilst arcades, like those of Milan and Paris, should connect the principal points of interest. All buildings should be constructed as nearly fireproof as possible, and permanent sites for fire-escapes should be established at stated distances throughout the city. . . . I would suggest that all buildings wherein large masses of persons congregate—such as theatres, churches, assembly-halls, &c.—should be provided with numerous ways of speedy egress, not only for safety's sake in case of panic, but for the ordinary convenience of the crowd, whilst the ways of ingress may still be few in number. Public baths and laundries, and public kitchens and bakeries for the poor, should be established in the poorer quarters of the town, as well as a regular system of public drinking-fountains for men and cattle. There should be a large public park, gymnasium, and baths, and a public garden with terraces and fountains, laid out on the model of the old Italian gardens, such as, for instance, that of the Pitti Palace at Florence. These should be connected with boulevards, which might consist of a central paved promenade lined with trees, having a road and tramway on each side, furnished with a handsome paved way next to the houses for foot-passengers. I have seen an example of this kind at Toulon which produced an excellent effect, and might be carried out on a larger scale.

"A few good canals, crossed by ornamental swing-bridges, as in Holland, might serve to connect the traffic of Lake Michigan with the principal railway stations and the Illinois canal. Spacious markets should be erected in central positions, those for fish being furnished with troughs to each stall, filled with water, in which fish can be kept alive, as in the "Halles" at Paris. Abattoirs, cattle markets, and all offensive or dangerous manufactures should be kept outside the city precincts; and, finally, not only should a system of sewerage be carefully prepared for the purification of the city, but the sewage matter should be utilised as manure, which might prove of incalculable service on the cleared prairie land of the State, and in all cases it should be borne in mind that, as Chicago has grown so rapidly in the past, there is every reason to believe that it will increase still further in the future; therefore, whatever is done, an eye should be kept to the requirements of an increased population.

"It may appear fanciful, and yet in many respects a large city appears to me to resemble a human being. It has arteries and veins, or large and small thoroughfares, through which the blood corpuscles, in the shape of men and women, continually circulate. It has a heart: its centre, where all meet, and where the great business of life is mainly carried on; lungs, or parks and open spaces, in which the air is purified. It requires water reservoirs and apparatus for receiving and discharging solid and liquid secretions, by means of drainage and sewage, outside the body corporate; moreover, to complete the resemblance, the surface of the city—the skin, so to speak—requires constant cleansing by water and friction to insure that cleanliness which is essential to health; whilst the municipality may be regarded as the brain, which brings experience and science to bear on the regulation of the entire body, having an equal regard to the convenience, health, and external appearance of the whole city.

"As regards the figures adaptable for the block plan of a city with its thoroughfares, it will be seen that the choice

lies almost entirely between a square, a parallelogram, or a circle; and my own opinion is all in favour of the last named, both for beauty and convenience.

Space, air, and trees should enter into all plans for new towns or new quarters, and I would propose that, instead of the old system of gardens at the back of town houses, the garden should be in front of the house, then the pavement, and the road for ordinary traffic, with a double tramway in the centre for the carriage of trains and cattle, not by steam but by horse power; for there seems to me no valid reason why railway trains should not be carried right through a city without changing. This, of course, would necessitate a much wider roadway than is common at present. All streets, terraces, &c., should be provided with back roadways for house service, coals, dust, and the carting away of refuse or sewage matter; and in a well-arranged city a back road to each street will be as necessary as a back staircase in a well-arranged house.

That was written nearly a quarter of a century ago, and read to the Institute in 1873; and the gist of it is now supported by Herr Stübben, whose main contention in his *résumé* of "practical and "of æsthetic principles" is that circulation in towns requires the planning of radiating streets, circular, diagonal, and secondary, with clearing spaces for the crossways. He goes only a little further than Mr. Waring when he boldly and rightly maintains that the streets of a town are not to serve merely as the medium of circulation, to furnish opportunities for covering land with buildings useful and beautiful on account of their airiness, their situation, or their arrangement; but they have yet a mission to fulfil—that is, to exhibit buildings in a favourable light and an artistic grouping. He even argues that a monumental building or a great statue, to be properly judged, must be looked at from four different points of view. First, to examine its details one must place one's self at a distance from it equal to its mean height; secondly, to take in the whole, separately, at a distance double its height; thirdly, to appreciate the relation a building or a monument bears to its surroundings and enjoy the effect it produces in an architectural group, at a distance triple its height; and fourthly, to appreciate the whole as one looks at a picture, grasp the several divisions and the complete outline, at a distance at least four times its height. When, therefore, a great building has to be placed in a public thoroughfare, the street should not be less in width than the height of the building; it would be better, he urges, to make the width of the street one and a half, or even twice, the height of the building. Herr Stübben would place a great edifice, and public buildings generally, in such a position as to form the termination of a street or of a network of streets. Take, for instance, the Church of the Madeleine terminating the Rue Royale in Paris, or the Opera House which forms the main object in view to persons approaching the Boulevard from the Place Vendome and the Place de la Bourse. In fact, Herr Stübben would avoid long, straight streets like the Rue de La Fayette, in Paris, and Oxford Street, which weary the eyes as well as the legs of pedestrians. A statue, he says, ought not to close the perspective of a street, and he would not make a statue the central *motif* of a square or *place*; he would range a combination of statues around the four sides of the square. He would adorn the centre with a fountain or a column, which he describes as architectural monuments. M. Buls is of the same way of thinking, but more philosophic; for in his opinion—and it is shared by a thoughtful minority, including a few artists—a *place publique* which has no useful destination is dismal and a desert. The original *places* in the old cities were market-places, absolutely indispensable to the welfare of the town. A vast open space laid out, as is now sometimes done, with paving-stones and lamp-posts is an artificial creation wanting in life and possessed of little to justify its existence.

The practical rules which, according to Herr Stübben, mainly determine the elaboration of the methodical plan of a town are evolved from the exigencies of circulation, building, and hygiene; the æsthetic rules to be observed relate to the development of streets and squares or open spaces, and also to the harmony which should exist between them and the buildings which line their borders. In laying out a street he considers that its crown should be about a metre above the natural level of the soil, in order to avoid too much digging in the construction of basements and foundations. For houses let in flats and business premises the sites or lots should have a length of about 395 English feet and a depth of about 170 to 200 (50 *à* 60 *mètres de profondeur sur* 120 *mètres de longueur*). For working-men's dwellings he suggests dimensions of site even more magnificent. The minimum width of a street he fixes at 33 English feet. A street of more than 130 English feet in width is rarely, he thinks, required for circulation; though sanitary or æsthetic reasons may justify, in his opinion, a greater width than that. No streets planted with trees ought to be less than 66 English feet wide, though their minimum width, says Herr Stübben, would be better fixed at 80 English feet.

What probability is there that the authorities who control the destinies of London will have courage enough even to consider suggestions such as those offered by Herr Stübben, much less apply them for the benefit of the metropolis entrusted to their charge? There is no money for such purposes in a city of five millions! Why, in this country, so careful a guardian of the public purse is Government that an imperial building may not be set back from the pavement far enough to prevent the drippings of its cornices falling on the heads or the umbrellas of passing pedestrians. Their grand stairs begin at the entrance doors, and hall porters find a refuge on their entrance steps; for *salles des pas*

*perdus*, or halls, or antechambers are forbidden, lest a Chancellor of the Exchequer's Budget should jeopardise his place, or his political party, or, worse still, his parliamentary seat! Nothing ever written on the laying out of cities or the building of towns can, in the present condition of things imperial and municipal in London, be made applicable to the huge city on the Thames:

A mighty mass of brick and smoke and shipping,
Dirty and dusky, but as wide as eye
Could reach, with here and there a sail just skipping
In sight, then lost amidst the forestry
Of masts; a wilderness of steeples peeping
On tiptoe through their sea-coal canopy;
A huge, dun cupola, like a foolscap crown
On a fool's head—and there is London town!
. . . . . .
Through groves, so called as being void of trees
(Like *lucus* from *no* light); through prospects named
Mount Pleasant, as containing nought to please,
Nor much to climb; through little boxes framed
Of bricks, to let the dust in at your ease,
With "To be let" upon their doors proclaimed;
Through "Rows" most modestly called "Paradise,"
Which Eve might quit without much sacrifice—
Through this and much and more is the approach
Of travellers to mighty Babylon.

Happier far than Don Juan, Mr. Barr Ferree [*Hon. Corr. M.*] came into London by train; and, possessed of more artistic culture than Byron, he was "hypnotised," during his stay, "by the endless "reiteration of the same lack of architectural form, "the most careless—or is it studied?—indifference "to architectural values; the utter ignorance of "architectural ideas, the complete mastery of com-"mercialism that would do no more than provide "the barest, ugliest shelter, and which, when "applied to domestic work, is in the barest, ugliest, "most intolerable of all forms, styles, and "manners of building." This indictment forms part of an article in *The Architectural Record*, entitled "Architecture in London," by Mr. Barr Ferree, who was here last year—and has been known for some considerable time to British architects by his literary essays and criticisms in American journals. But I ought, in choosing the foregoing denunciatory sentences as an introduction of his Paper, to qualify them by quoting him further, for he adds: "This is the painful side to "London architecture, and a very large one it is, "but it is necessary to refer to it here in order to "explain just what I mean in saying that only the "new buildings of London are of interest. These "buildings are still in the minority in the huge "mass of London architectural deadness, for as "yet there is no *new* London, architecturally "speaking." Of course, he is nothing if not an admirer of "correct architectural taste," and to judge by the illustrations he has chosen for his essay, the "correct" taste in architecture is the picturesque. His predecessors have owed much to the École des Beaux-Arts and have believed in the French architectural school, importing a good deal of it into the United States. But many Americans, and Mr. Barr Ferree among the number, are getting tired of the "Louis Seize," the "Napoléon "III.," and the "Néo-Grec," and they evidently intend henceforth to shut their eyes to any beauties found in the Place de la Concorde and the Place de l'Étoile of Paris, or in the Ringstrasse of Vienna, or in the new quarters of Brussels, or in such a group as the London Royal Exchange and its surroundings seen from the Mansion House, or in such streets as Pall Mall. At the same time he gives views of the Thames Embankment and Northumberland Avenue embodying comparatively new buildings designed in a style once thought "correct," though not the picturesque style of to-day. He has a good deal to say about the Imperial Institute, the front of which is shown in a beautiful illustration; and following the custom of American purists who spell the words travelled, "traveled," and marvellous "marvelous," a consistent compositor with a turn for logic has docked its architect of an "l"—spelling him "Colcutt." Nor does Mr. Barr Ferree wholly agree with what he calls the British criticism of this edifice—that it does not represent the glory of the British Empire. He rashly maintains that the two beasts on the entrance steps sniff the air with an upward turn of the nostrils "that raises them among ordinary "animals and endows them with an air of utter "respectability and contempt for mankind in "general which must, I am very sure, largely "typify the British Empire, though the building "fails to do so." Several other works are commented on; and he reserves his commendation for the Houses of Parliament, eulogising Sir Charles Barry as architect of "the greatest and "most successful" among the great buildings of the world. He has plenty of praise also for the ecclesiastical structures erected in London within the last fifteen years. Taken altogether, British architects have every reason to be pleased with the appreciation shown for their works by Mr. Barr Ferree, who is able to write a readable essay on what at the best is a severe subject; and of enlivening it at times with observations which, if addressed to citizens of the Great and Free Republic, might cause even the Young Columbian to "sit up," but which are not too acutely felt by the long-suffering, much-abused inhabitants of an older country.

To enjoy a description of Londoners it is not necessary to search American quarterlies. He who believes that London is the world's headquarters and the only possible home for men with any desire for domestic civilisation, for the amenities of a club, and for kindly treatment from those whom Mr. Gladstone calls the masses, may be disillusioned by a perusal of "Londoners at Home" in the latest issue of *The Quarterly Review*. It is, of course, Mr. Dick again, with a new version

of his Memorial, out of which he can no more keep the leasehold system and the architectural profession than he can pardon the latter for having ousted "inspired workmen" from their proper sphere. Not that Mr. Dick's name is affixed to the article; every child knows that the *Quarterly* is one of those journals

> Where Lord knows what is writ by Lord knows who!

and that its contributors dwell upon past ages of universal contentment, sixty and seventy years, even a century, ago. Indeed, when the author of "Londoners at Home" states that "Those who have "reached their threescore years and ten remember an entirely different class of people in the "town whose northern boundary was the line of "road from Paddington to Islington," one becomes reticent, feeling that the ground on which he treads may be delicate; and that possibly the erection of termini by the Great Northern and Midland Railway Companies may have brought this calamity home to him. When one is gravely told that "drink appears to be the only gustatory "pleasure left to men," and that Londoners are satisfied with "generally dirty linen," one feels that writers, even in *The Quarterly Review*, are apt, from the small intellectual world in which they dwell, to generalise, perhaps hastily, on the habits of the larger one beyond and around them. When one learns, not for the first time, that "A "century ago the servants of the middle class "lived with the family, and dined with them, "below the salt," and that later, "the younger "generation became uppish," one is reminded of the *Struldbrugs* whom Gulliver encountered after he left Laputa and its famous Academy at Lagado. These Struldbrugs were men, born with a red spot over the left eye, who lived for ever! They acted like mortals till about thirty years old, after which they grew melancholy and dejected, increasing in both till they came to fourscore, so that their neighbours, the mortals, when desirous of ascertaining their age, were wont to ask them what kings they remembered, and then consult history; for, as a rule, the last in their minds did not begin his reign after they were eighty years old. Now, there were certain restrictions to the liberty of every Struldbrug which made him, as it were, a lodger rather than a proprietor upon earth; and if there is one thing that rankles in the bosom of the good old Tory reviewer, it is the humiliating fact that the majority of Londoners are merely lodgers. For more than twenty years he has harped on the same string, the burden of his melody being that "Londoners are aliens on the "soil they occupy," and that "all good, stable "government is founded on possession of the "land," which latter assertion is a paraphrase of Swift's dictum that Law in a free country is, or ought to be, the determination of those who have property in land. A blind craving for real property, which appears to possess the soul of the author of "Londoners at Home," is obviously aggravated by the knowledge that no Struldbrug was allowed to purchase lands or take leases (see *A Voyage to Laputa*, &c.). An uncontrollable sense of injustice urges him, every quarter of a century, to compromise *The Quarterly Review* by the promulgation of revolutionary doctrine. The leasehold system has grave defects, and is responsible for much bad building; but if that ancient and immortal Review is in earnest, it must assail this remnant of feudalism with different weapons from those it has hitherto used before the system can be eradicated or improved.

The moral truths in "Londoners at Home" are excellent reading. For instance, the author says: "The exclusion of three-quarters of the London "population from polite society, whatever be the "cause, should be esteemed a reprehensible mis-"fortune;" and again, "The great aim of all of "us should be to make the lowest working man "in London a true gentleman"—both of which precepts are unobjectionable, nay, they are praiseworthy. But the assertion which follows, that "Instead of this endeavour to improve the status "of the proletariat, the present public impulse is "to bring our London workmen to a state of "pauperism," is absolutely the reverse of the fact. He is not, however, wrong in the statement that "London, all its gifts considered, is perhaps the "least efficient and least influential aggregate of "people on the globe." The fact is only too patent, and the remedy seems to be the scheme so ably propounded by Mr. Chamberlain, whereby London may be rendered capable of administering its own affairs in ten independent divisions of 500,000 inhabitants each, as described above; and under the ægis, I take it, of an Imperial Council composed of representatives elected from each division. Moreover, *The Quarterly Review* is perfectly correct, and does a public service, in making the following statement:—

> Houses are mostly built with some part of the outer walls but one brick, of nine inches, thick; and workmen's houses, "self contained," are wholly built with merely nine-inch work. . . . Roofs are constructed with extreme tenuity; an inch of slate and plaster is the wholly insufficient covering and protection of an average London house.

This, though, is not the fault of architects, but of the Legislature. When the clauses of the Bill which last year became law under the title of "The London Building Act 1894" were being discussed, an attempt was made to get the 9-inch external wall increased to 14 inches, but the promoters of the Bill feared to add to the cost of building operations, especially those connected with workmen's dwellings; and the advice of architectural experts was not entertained. As for the flimsy character of roof construction, and of floor construction also, architects are only too desirous of doing good work if their clients will

but pay for it; and they are not called in to control the jerry-builder. In the opinion of the author of "Londoners at Home" roofs are of far more importance to the health of the community than drains, though the latter are regarded as paramount, and have an army of sanitary inspectors to look after them. He says:—

Beginning from the outside, a roof covering should consist of (1) thick slate or tiling; (2) the battens, one inch thick; (3) two layers of asphalted felt; (4) inch close boarding; (5) the rafters; (6) lath and plaster. Below all this should be an open space, a useful loft or storeroom, with (7) inch tongued flooring; (8) ceiling joists; and (9) lath and plaster. For absolute comfort, straw or reeds should be laid upon the lower boarding. With this arrangement, and with walls not less than fourteen inches thick, all under legislative authority and municipal control, our modern houses may be made as wholesome as the thatched cottages designed and built by working men, in which our ancestors rejoiced three hundred years ago, before the architectural profession and the leasehold system had developed miserable building.

In conclusion, it should be known that the ancient and immortal *Quarterly* advocates a periodical "universal stringent survey" of the interior of our houses and homes, and advises the London County Council to promote a Bill in Parliament for the purpose. The beneficence of the traditional grandmother could go no further; but the sympathy of Olympus is more likely to befriend the mortals than those who aspire to everlasting competition with the gods. Of course, when the time is ripe, precedents will be found for this apparent attempt to destroy the liberty of the subject; and there will be Struldbrugs ready to swear that the thing was done in the time of Agamemnon, Charlemagne, or Wat Tyler, as the case may be. But man is a hopeful animal, and there is much nourishment in Hope.

WILLIAM H. WHITE.

ERRATA.—In the Review of Herr Stübben's Pamphlet, entitled, *Der Bau der Städte in Geschichte und Gegenwart* [p. 591], at the end of the first paragraph, the two final sentences should read:—Careful plans were drawn, due regard being paid to the relative positions of sacred, public, and private buildings, *e.g.* Piræus, planned by Hippodamus of Miletus, which, according to Hirschfeld's restored plan, may compare with any modern town; and Cnidus, which lies between two harbours, and has, at its rear, a small eminence crowned with a temple.

In the second line of the paragraph which follows [p. 591], *for* "Democrates" *read* Deinocrates.

(86.)

## ANCIENT ENGLISH HOMES.

*Some Ancient English Homes, and their associations personal, archæological, and historic. By Elizabeth Hodges. With illustrations by S. J. Loxton. Large* 8*o. Lond.* 1895. *Price* 10*s.* 6*d. net.* [*T. Fisher Unwin*, 11, *Paternoster Buildings, E.C.*]

In this work the author gives an interesting account of some eleven mansions of departed greatness in the counties of Gloucester and Warwick. Besides local connection, nearly all are linked together by their associations with the Berkeley family, and in another sense by their fallen fortunes, for several are now ruins, or little more than ruins, while others, though they have not ceased to be homes, are not now occupied by the representatives of the great personages who once lodged in them. The mansions dealt with in these sketches are not famous—the general reader, indeed, would scarce be familiar with so much as the names of many of them—but this, as the author fairly puts it, is only a reason the more why their historic and personal interest should be made known. I am afraid that the author's sentiments, if the following passage fairly represents them, will not wholly commend themselves to the architect. In her introduction to the account of Wotton-under-Edge, the first "home" with which she deals, she says:—

It is the "secrets" of these old houses, their intimate associations with the varied personalities of their sometime occupants, that give them real and lasting interest. The antiquary may describe, with archæological accuracy, how this arch is of "Anglo-Saxon" date; this moulding of "Norman" workmanship; the clustered pillars "Early "English." He may go into archæological raptures over the groining of the roof, the elegant tracery of the windows; but unless he can tell us something of the men whose martial footsteps or jovial song made the roof ring; or of the women, watching from the traceried windows for the coming of the lord or lover—who, perchance, came no more or came borne on his shield from foray or battle—little emotion is excited within us, little impression registered on the tablet of our brain.

The author, therefore, in her book has "endea-"voured to clothe with something of human "warmth and interest the stony skeletons of a "few of these ancient mansions." *Quot homines, tot sententiæ*—to the architect it is probable that the stony skeletons of the mansions may be as full of living interest as the dry bones of the biographies of those who once occupied them.

This, however, means no more than that we must not look here for architectural details or architectural history; realising that this is not included in the author's object, we can better appreciate the way in which that object has been carried out. It is the family and other associations of the various houses to which attention is mainly devoted rather than the actual edifices, of which some may certainly be interesting to the architect, though the greater number would probably scarce repay his study.

Of these associations the author gives a very readable account, though hardly of extensive interest, because the persons who appear in the narrative do not, for the most part, occupy any prominent position in our history; but the book appeals to many who are either well acquainted with the places described, or for some other reason peculiarly interested in its stories. It is a matter for congratulation that books of this nature have ceased to be the products of imagination or credu-

lity which they once generally were; and although the author in the present case does not quote the authorities for her statements or add a list of them, which is a pity, there is every indication that her facts are not given without previous verification by records or other sources of information.

The book is printed in a clear type, handsomely produced, and suitably illustrated with numerous drawings.

H. P. Burke Downing.

## NOTES, QUERIES, AND REPLIES.

**MM. Perrot and Chipiez, and Mr. Penrose** [p. 525].

Monsieur Chipiez, writing from Paris on the 2nd August, on behalf of Monsieur Perrot and himself, cordially thanks Mr. Penrose for the latter's review of the English translation of the sixth volume of their *Histoire de l'Art*, relating to Mycenian Art, on which subject Mr. William Simpson has since given [p. 611] some of the results of his own researches. M. Chipiez states that the question of the origin of the Doric Order, which has been only touched upon in the sixth volume, will be treated more fully in the seventh.

**"Architecture for the Public"** [p. 587].

From H. Heathcote Statham [*F.*]—

While grateful to Professor Baldwin Brown both for his sympathy and for some of his criticisms, there are some assertions in his article in the last issue of the Journal which, on general grounds and quite apart from the special subject of my own book, I cannot pass without questioning.

He thinks I should have said something as to the probable origin of such a very "un-stone-like" feature as a moulding. I said nothing about the historical origin of mouldings, because I know nothing of it, and no one else does. But I entirely deny that they are "un-stone-like" features, or that they are more easily worked in wood. On the contrary, I think that if Professor Brown endeavoured to work mouldings in wood and in stone with such comparatively rude tools as were probably used in the early days of architecture, he would find that mouldings were much more easily worked in a granular material like stone than in a fibrous material like wood. In the arcades of the early Norman churches, which commenced without mouldings, we have, in fact, the process almost going on before our eyes: the arch first with its simple soffit, then with the angle chamfered off, then with a rude form of moulding. And it is surely rather significant that there is not at this moment an existing moulding, worth calling such, in wood which is not a copy from a stone original.

I suspect that Professor Brown's wooden predilections in regard to the origin of mouldings are unconsciously influenced by his evident adoption of the theory of the entirely wooden origin of the Greek order. I do not consider that anyone has a right to assume the wooden origin of the Doric column as a matter of fact, and I think there are strong arguments the other way. Professor Brown refers to the Heraion at Olympia. But what is the evidence? Solely the statement of Pausanias that there was one column in the opisthodomus that was of oak. On the basis of this statement it has been argued (as I have seen in print) that all the columns of the Heraion were once wooden, and that the one which Pausanias saw was the last one left, stone columns having been gradually substituted for the wooden ones. There is absolutely nothing in his statement to support such a theory. The wooden column might have been one in the interior of the opisthodomus, made of wood for some special reason.

Whoever supports the theory of the wooden origin of the Doric column has to explain these facts: (1) that the further back we go in the known and approximately dated examples, the thicker the columns get, while the reverse would probably have been the case had the original forms been wooden; and (2) that the characteristic moulding under the abacus of the Doric capital is an essentially stone form, and one which it would not be at all easy to work satisfactorily in wood.

An attempt has been made by Hittorff and others to derive an argument for the wooden origin of the Doric column from the representations of attenuated columns on Greek vases, of such proportions as could not be executed in stone. I was always disposed from the first to reject this evidence from vases as of no value, because (as I have pointed out in my book) a vase painter would probably merely put in a kind of symbol of architecture in the way that suited his composition best, and would feel under no obligation to make it accurate. A recent visit to the British Museum confirmed me in this opinion. There, among the red-figured vases of the best period, is to be found in one of the side cases a representation of an Ionic capital of most clumsy, and what would be generally called archaic, design; and in one of the centre cases is a vase with a crude representation of a quasi-Doric column of about the proportions of a modern street lamp-post, with no fluting and with a lumpy moulding at the top, clumsily designed and as unlike the Parthenon capital as anything could be. These vases are of the same period as the Parthenon and Erechtheion. What, then, is the value of vase evidence in the matter?

Professor Brown seems to assume (and I appreciate his reason for assuming it) that there was no connection between the art of Greece and that of Egypt. I have long ago come to the conclusion that modern archæology has its successive fashions just as much as modern architecture. Not so many years ago it was the fashion to speak of

Greek art as almost entirely derived from Egyptian; an opinion which I never accepted, so that it feels odd to have it thrown at me now. But none the less I think that there is a closer relation between the columnar architecture of Egypt and that of Greece than between any other known remains and those of Greece. The Beni-Hasan columns, once regarded as the predecessors, *longo intervallo*, of the Doric column, are now to be dismissed with costs. But what else comes so near to the Doric column? We have more examples to go upon now, and I cannot understand how anyone could look on the drawings and photographs of Deir el Bahari, recently exhibited at the rooms of the Society of Antiquaries, without thinking of the effect of a Doric colonnade. It is true we lack the intermediate steps between that and the Doric column; but what else is there? And is it not almost logic to give the preference to the only feature, at all events, which we know, which shows some inherent resemblance to the Doric column? It may be observed, too, there is a great resemblance between some forms of Egyptian repeating ornament and some Greek ornaments, which goes to confirm the view of an artistic relationship between the two countries.

Another point on which I must join issue with Professor Brown is in his dictum that, however original an architectural design may be, it must conform to some style. I think that is just the very prejudice we want to get rid of, and that the only excuse for it lies in the weakness of human nature, which finds it very hard to escape from precedent. Every design, to be worth anything, must have *style*, but to have "style" and to conform to "a style" are two very different matters. If a man *can* design a building which has style and is pleasing, though it may be impossible to refer it to any known style, he has achieved something. One of the most powerful and effective things in the architectural room at the Royal Academy this year was Mr. Wilson's study for the exterior of Boscombe Church, but I will defy anyone to say what style it is in.

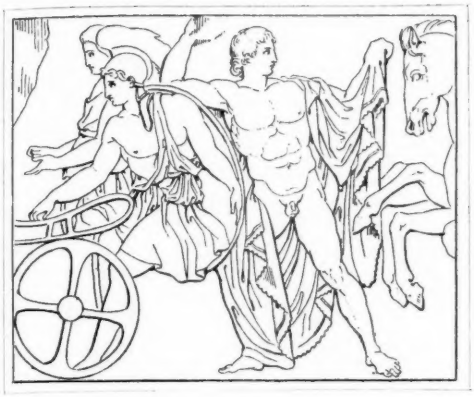
I think it is to be regretted that Professor Baldwin Brown has thrown cold water on the idea of the compensatory curves, &c., of the Parthenon. I consider that in the main (there may be some doubtful details) Mr. Penrose's measurements have settled that point once and for ever. The opposition to the theory on the part of Professor Durm is merely one of the instances of the passion of all German archæologists for having a theory of their own, more particularly in opposition to an archæologist of another nation. There are as many theories about ancient architecture in Germany as there are German archæologists; for each German thinks it a duty he owes to himself and his country to have his own theory all to himself. The French have not so many theories, but they have a great deal of national vanity; and that, I believe, was the real reason for the late Le Sueur's pertinacious repudiation of Mr. Penrose's discovery of the Parthenon curves. He would have been content to accept them if a Frenchman had made the discovery, but he could not abide that an Englishman should have done it.

### "Sacred Posts" in the East.

From Wm. Simpson [*H.A.*], R.I.—

In a notice which lately appeared [p. 456] of Mr. Smither's work on the *Architectural Remains at Anurâdhapura*, the purpose of the tall pillars which surround the Thupáráma and Lankáráma dágabas was considered, but no definite conclusion could be reached. The idea that Mr. Smither favoured was that they had supported Buddhist emblems on their tops. This explanation may perhaps be fortified by what Dr. Führer, in his last *Progress Report*, reviewed in the Journal, p. 592, says about the Sandò Payâ, the largest pagoda in the modern town of Prome. The platform on which it stands is paved with stone slabs, "and all round "its outer edge is a continuous series of carved "wooden image-houses, and between these and "the pagoda are *garuntaings*, or sacred posts, "surmounted by *garuda*, with long streamers "dependent from their summits." I assume, although he is writing of Burma, that the word *garuda* here means the creature, half-man, half-bird—the *wahan* of Vishnu. So far as my memory goes at the moment, this is the only example, with the exception of the two dágobas at Anurâdhapura, that I have met with of pillars, or posts—in this case described as "sacred posts"—surrounding a Buddhist stûpa; and here their main purpose is that of supporting emblems.

In the notice of Mr. Smither's book I mentioned the old Buddhist Láts, all of which were surmounted by emblems, as helping to confirm this explanation; but further evidence may be derived from stambhas, or pillars, existing at Hindu temples. There are two columns at the celebrated rock-cut temple, The Kailasa, at Ellora, on one of which is still visible on its top a fragment of a *trisula*, or trident, a symbol that was common to both Hindus and Buddhists. There is one at the great temple of Jagannátha at Puri: this pillar, called the Aruna Stambha, stood originally before the Sun temple at Konárak, and had a monkey on the summit. There were others of the same kind in Orissa, and one still stands at Jagepur (see illustration in Fergusson's *Indian and Eastern Architecture*, p. 433), which supported a *garuda*, the same fabulous monster that is borne on the "sacred posts" at the Sandò Payâ in Prome. The practice of erecting pillars for supporting emblematical objects at temples, which was followed by both Buddhists and Hindus, appears to make it highly probable that this was the purpose served by the pillars at the Ceylon dágobas.



# ARCHITECTURAL EDUCATION.

## UNIVERSITY COLLEGE, LIVERPOOL.

### The School of Architecture and Applied Arts.

The aims of this School are now well known. In the first place, it desires to effect a complete union between the different arts and crafts. To produce this unity, it is necessary that the students in the different crafts should work side by side in the same studios. It is not enough that the students of the three arts of architecture, sculpture, and painting should be together; with them also must be the stone and wood carver, the designer in stained glass and in textile fabrics, the furniture designer, gold, copper, and iron smiths, and workers in other crafts. The men will, by this means, not only get into touch with one another, but will also gain that insight into each other's work which is absolutely necessary if their own is to be brought into harmony with it. Most modern work fails because each craftsman knows nothing at all about his neighbour's craft. The architect should undoubtedly learn how to model; it will do him no harm to try and paint also. The sculptor must know something about architecture and painting, and the painter have an acquaintance with sculpture and architecture. To the stone and wood carver and plasterer it is of course unnecessary to state that modelling is an essential. The stained glass designer and book illustrator may gain much from studying the work of students in other branches, and the latter may also learn much from the former. The second and third aims follow naturally. To establish a course of training for students in the different arts of painting, sculpture, and architecture; and to provide special instruction of an advanced kind for skilled craftsmen and artisans, especially in those crafts allied to architecture. It is with these objects that the studios and classes have been started. It is hoped eventually to start others, but so far this has been found impossible.

The School consists of (1) the architectural studio; (2) the sculpture and modelling studio; (3) the decorative painting studio; (4) the wrought-iron workshop; (5) the wood-carving workshop.

#### (1) THE ARCHITECTURAL STUDIO.

The course of studies in this studio, intended for those already engaged in architects' offices as pupils and assistants, and also for those who, intending to become architects, pass through a course of architectural training *before* entering an architect's office, has been fully described in the JOURNAL [p. 601]; and a special pamphlet, which gives full particulars of the scheme of architectural education, can be obtained on application to the Registrar, University College, Liverpool.

#### (2) THE SCULPTURE AND MODELLING STUDIO.

The course of study provided is suitable, not only for students intending to become sculptors and modellers, but also for wood and stone carvers, plasterers, and other craftsmen. The actual copying of casts from the antique or from ornament, which is useful as a first essay, in order to understand the manipulation of clay, is abandoned as soon as the student is sufficiently advanced. He next is set to reproduce in relief a bust from the round, to model the anatomical figure, and to adapt architectural ornament. This leads up gradually to original designing in ornament, and modelling from the living figure. Next session the study of drapery analysis and design will be made a special feature. As an inducement to students to make sketches in wax or clay during their spare time, a Sketch Club will be formed next session. These clubs exist in all the principal art schools in London, and have been found to work most successfully, and to be of immense benefit to all who take advantage of them. Different subjects will be set from time to time, fortnightly or monthly, as found best, the sketches to be sent in by a given day. It will be open to students of all the departments to compete, and each will be at liberty to work out the design as he thinks best, either in the round, or on paper or canvas, in charcoal or in colour. On the evening chosen all sketches will be exhibited, and will be criticised by the instructors before the assembled students. By this means not only will the students see how each has treated the given problem, but also how, according to the medium used, the design differs.

#### (3) THE DECORATIVE PAINTING STUDIO.

The course of studies is so arranged as not only to provide a thorough training in drawing and painting for students who wish to take up painting as a profession, but also, and especially, to train men in the work generally known as "Decorative Work." Under this heading is included mural decoration, stained glass, book illustration, and headings and borders for frontispieces and book plates, friezes, wall papers, designs for fabrics, &c. No student is allowed to attempt decorative work until he has first shown that he possesses some knowledge of drawing. The amount of knowledge necessary varies according to the work the student intends to take up. For the higher kind of mural decoration, where the human figure is the ruling *motif*, and for stained glass, an absolute mastery over figure drawing is necessary before the student can expect to do good work. But for work where the figure is not introduced at all, and the space to be filled or wall to be decorated, as the case may be, is covered or partially covered with ornament, the standard need not be so high. Next session a special attempt will be made to deal with this kind of work, the study of which has been, unfortunately, too much neglected in England in the past.

#### (4) THE WROUGHT-IRON WORKSHOP.

The instruction includes practical and theoretical training. A portion of the time each term is set aside for the study of scientific points in the working of iron, and for detailed criticism of old and good modern work. If possible, this will be illustrated by full-size lantern views. Instruction in how to observe lines and curves, light and shades, and especially the different sizes of materials, goes side by side with the practical instruction at the fire and bench. Each student has to draw correctly the curve before he hammers it. A collection of drawings and examples of old work is now being made.

#### (5) THE WOOD-CARVING WORKSHOP.

All students are taught their craft from the beginning. After they have learnt how to sharpen their tools, they are

set simple designs to carve, which are drawn on the wood, or else are set to work from casts. In the case of more advanced work, students are recommended to first model their designs.

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## Some Thoughts on the Training of Architects: being an Address delivered by Mr. T. G. Jackson, A.R.A., at the inauguration of the School of Architecture and Applied Arts, Liverpool, 10th May 1895.

The establishment of a School such as this in your midst, under the combined auspices of the City and University, cannot fail to influence, in one direction or another, the current of artistic education, not only at Liverpool, but in the country at large. Efforts to a certain extent resembling yours are being made in other places. Throughout the land technical schools and institutes are rising, and attracting large numbers of students; and are gradually substituting new methods of training for those to which we have hitherto been accustomed. Your scheme, however, has many special features which distinguish it from among the rest, and give it an interest of its own, especially in the eyes of an artist. Yours is to be a technical school, but in the highest sense of the word τέχνη. While the ordinary technical school stops short at the attainment of manual dexterity in the handicrafts, or such theoretical acquirements as can be had by studying text-books, and doing exercises on paper about building construction or simple engineering, you go further, and submit your training not only to the canons of utility but to those of beauty. While your students learn the practice of the different handicrafts, and the principles of construction, they will also be trained to consider the æsthetic result of what they are doing, and to design work that is not only strong and well put together, but beautiful; and not only beautiful, but beautiful in the best way—beautiful as expressing outwardly the perfection of the methods by which the work has been produced; the perfect correspondence of the means employed to the end that is attained; and the pleasure of the workman in the success of his endeavours, which finds a natural vent in the grace and comeliness with which, under such circumstances, he is sure to invest his work.

Yours is, in fact, a school of the applied arts, and of architecture as being the greatest of the applied arts; applied, however, not in the sense of being something that can be put on to existing work, or left out at pleasure and according to the means at command: that gives an entirely false idea of it. Indeed, the term "Applied Art" is a very unfortunate one, corresponding as it does very nearly to one of the most fatal misconceptions of the nature of architecture. One popular view is that architecture is a matter of expense; that if a plain house costs so many hundred pounds, a hundred or two more would make it a work of architecture. This reduces architecture to a mere question of ornament. According to this view it is only building ornamented—it is not more than skin deep, and is no intrinsic part of the building whatever, which remains practically the same if you take it away. Hence arises another fatal misconception—that buildings may be divided into two classes, architectural and non-architectural. Architecture is supposed to belong to important structures, large houses, town-halls, churches, and public buildings, and to be out of the question in the ordinary cases of humdrum life under which the majority of mankind exist. In fact, it is supposed to be a luxury, very desirable for those who can afford it, but as much beyond the reach of ordinary folk as a carriage and pair of horses, or vineries and orchid houses, or footmen and a butler.

Now, if this were a true notion of what architecture is, we might call it an "*applied*" art indeed, in the sense of being something overlaid or plastered upon something else which could do without it, but in any true sense of the word "art" it would be not so much applied as *misapplied*. Architecture, properly understood, is not the art of tricking out plain building with ornament, but the art of building well, and at the same time building beautifully. It is, in fact, nothing else but good construction inspired from first to last by an artistic motive. Ornament is no necessary part of it. Very often it is far better left out. Ornament is the last resource of an incompetent artist. As I heard it well put by one of your own professors, "when a man can't design he falls back upon ornament." Expense does not enter into the question. Most of our great architectural efforts would have been far better had less been spent upon them; and the best modern work in ordinary domestic buildings is so restrained and simple that a vulgar observer sees nothing in it, and wonders how it can pretend to be architecture at all. Nor is any building too humble for architectural treatment: architecture is no more a luxury than virtue is a luxury. It is within the reach of all; the humblest edifice should be as virtuously and honestly built as the proudest, and architecture is simply the art of doing this well. Ornament she will use with discretion and sparingly, and only of the best kind, welcoming it gladly when it is befitting; withholding it where it would be out of place and unmeaning; building plainly where plainness is proper; splendidly where there is occasion for dignified expression; but always basing design on construction, always proportioning effect to the occasion, and, while cheerfully obeying constructional necessities, still in her turn, from first to last, shaping and adapting the forms suggested by construction into beautiful and harmonious combinations. It is in this way that architecture is truly an applied art, consisting, not in the application of decorative treatment to the mere nakedness of building, but in the application of an artistic motive to the principles of construction, inspiring the process of building with an artistic method, from the laying of the first brick to the driving of the last nail in the fabric.

Now this artistic motive is a matter of instinct. A true artist works unconsciously in a certain way—he could not tell you why—and produces a beautiful thing. Set another man to do the same thing, who has no gift for art, and he will produce something perhaps equally sound and serviceable, but not beautiful. The artistic instinct is born with a man, and cannot be implanted if he is born without it. Most men have enough of it to enjoy art and to appreciate the works of artists; in others it is absent altogether, or exists in so slight a measure that they wonder, with a friend of mine, a well-known professor at Oxford, that any man can continue to trouble himself about art after he is forty. It is only in comparatively few that the poetic instinct—the instinct of ποίησις—of creating, of realising, their ideas of beauty in a concrete and expressive form, is so strong that they cannot refrain from giving it vent either in literary composition, verse or prose, or in music, or in the fine arts, as they are generally called, of architecture, sculpture, and painting. These men, and these only, are artists; and unless a man happens to be born with this artistic temperament it is useless for him to attempt an artistic career.

But if no school and no training will convert a man into an artist who has no natural gift for art, it must not be supposed that natural gifts alone will suffice without study and direction. Art has its traditions and its canons, the result of the gathered-up experience of ages, all of which must be learned and obeyed; and though a man must be of the right material to begin with, training and education are required to enable him to use his natural gifts to advantage and to shape him into an artist. This has been done in many ways, at different times, with various degrees of success, and each method still has its advocates and admirers. You, at Liverpool, are now about to try a novel method, and to apply to the training of architects, and craftsmen who are to be in touch with architecture, the

methods which are being applied throughout the country to the training of handicraftsmen. The experiment is a very interesting one, and the result will be awaited with anxiety by all who have the progress of our art at heart. But, like all experiments, it is not without its dangers, which should not be overlooked by those who have the direction of it.

I have called your new school an experiment. The whole system of teaching crafts of any kind in technical schools, indeed, is still in an experimental stage, and we are still in the dark as to what will come of it. In the handicrafts it seems to have sprung into existence to fill the void left by the decay of the old system of apprenticeship. Trades were learned in olden time, and down to our own day, by binding lads to serve under an experienced master, who undertook to impart to them the mystery of his craft. Why this system has fallen suddenly into disuse we must not stay to inquire—enough that it has done so. The labour market is stocked with men of whom perhaps the majority would, in former days, be said to "have stolen their trades," or, in other words, picked them up, more or less imperfectly, as they could, without the regular training of an apprenticeship. It is to repair this deficiency that technical schools have been founded; but experience alone can decide whether the teaching in a technical school, where the scholar's work must consist of exercises and not of real productive work, can ever bring about so good a result as the personal influence of a master on an apprentice working under his own eye, and on things that are really to be used and paid for by an employer. Apprenticeship, however, in the handicrafts is practically at an end, and technical schools, whether for good or for evil, seem destined to give it its death-blow.

Now, in our craft of architecture, apprenticeship has hitherto survived. It is still thought a necessary part of the training of an architect for his calling that he should be apprenticed to a practising architect, and learn from him how buildings are designed and carried out. Of course, no one supposes that he can get all his training in that way. He must read for himself, and study for himself as well; he must form his taste by observation of other men's work, both modern and ancient, and he must take every opportunity of being on the works that are going on under his master's direction, so as to see in process of execution the designs which he has known, and perhaps himself worked out on paper. But if he chooses his master wisely, and if the master acts conscientiously by him, that part of his training which will most influence his after career is that which he gets in his master's office. No training in schools will ever give him the same insight into the proper conduct of an architect's work, nor will any amount of exercises in working samplers, as they may be called, teach him a tithe of what he learns from work to which responsibility is attached—work that has really to be carried out, work that is intended to endure for generations, and which must therefore be right, sufficient, and practicable, under the penalty of failure and retribution.

The best proof of the superior educational value of training the student on real work to that of training him on samplers and exercises in a technical school is to be found in the greater avidity which it inspires for acquiring skill and knowledge, and the greater rapidity of the student's progress. Those architects who are in the habit of taking pupils will, I feel sure, confirm my own experience in this respect. What is the method we employ when a man comes to us to learn his craft? He has to begin by learning the use of his instruments, and next proceeds to draw out elementary lessons in architecture. He learns how to set out the classic orders, how to set out and construct traceries, how to bond his masonry and brickwork, the principles of framing roofs and floors, doors and panelling; but long before he has got very far into the mysteries of construction, and of making such drawings as will explain the intended construction to workmen, his master, if he is wise, will have begun to set him to the simpler work of the office, and take him away from mere exercises. And if the pupil is really in earnest, it is remarkable how gladly he flies from the unreality of drawing imaginary work, or copying things out of books, to the responsibility of making working drawings of anything, however simple or humble, that has really to be made from his own representation of it. He works with three times the relish and ardour, and learns more in less time.

This illustrates one difference between being trained as an apprentice and being trained in a technical school. Another very important point is that the apprentice is trained by an individual and not by an abstraction. He is under the influence of a personal master, whose ideas he has to carry out and follow intelligently; and in that way he carries on, when he comes to work for himself, something of a tradition, something that corresponds to the schools of artists in former days, whose work grouped itself round the style and methods of some artist or group of artists in sympathy with one another, whose ability was sufficient to impress its influence on the young men whom they trained to follow in their steps. Something of this certainly results from our system of pupilage. The influence of a well-known architect can often be detected in the work of his pupils after they have begun to originate for themselves, however far they may deviate from the precise style of their master, as it is inevitable, and indeed to be desired, they should do, if they are to contribute their fair share towards the advancement of art. It is only by this system of succession, by the transmission of an art from master to apprentice, that the traditions of art are kept alive. They stand or fall together. All the handicrafts till one hundred years ago had their traditions: skilled workmen had certain rules and proportions for setting out doors, and windows, and other details, based on sound principles which had passed into axioms. There was no need in the days of Wren, Hawksmoor, Gibbs, Kent, and Flitcroft for the architect to make half the detail drawings without which, nowadays, the result would be a failure. Traditions have for the most part gone, and they have gone because, with the decay of apprenticeship, the system by which they were passed on from one generation to another has almost ceased to exist. No traditions can ever attach to a technical school directed, governed, and supported by boards of persons who are not themselves craftsmen, and instructed by teachers whose whole time is necessarily occupied in training others, and not in producing any actual work of their own.

In what I have ventured to say, not, I hope, too positively, on the value of the system of apprenticeship which, fortunately, survives in the training of architects, I believe I may claim to have on my side those who have been instrumental in establishing this new School of Architecture and the Applied Arts in Liverpool. I believe that they fully recognise the importance of maintaining the present system of apprenticing the student to a master, and are alive to the danger of interfering with it by anything they may do. That there is some danger is indubitable, and it will need all their vigilance to guard against it by framing their courses of instruction in such a way as not to supersede the final stage of training in an architect's office, but to prepare the student for it, and to supplement it in those particulars in which it is deficient and requires to be supplemented.

For although it is of supreme importance that the old traditional habit of apprenticing architectural students should remain, and though I hold that no school training can be substituted for it without irreparable loss, still I am far from saying that it will give the student all he wants to qualify him for his career. It needs to be supplemented in a thousand ways, many of which the student must dis-

cover for himself, and will go on discovering to the end of his life, and many in which such a school as this of yours at Liverpool may be of infinite service to him.

### DEFECTS IN AN OFFICE TRAINING.

One deficiency in the training of an architect's office results from the fact that a modern architect is shut up in an office, away from physical contact with the work he directs. This isolation of the architect is a matter of comparatively recent date. Of old, in the palmy days of our native art, it was not so. If we wish to understand how those masters learned their craft to whom we owe the cathedrals, churches, palaces, and mansions which adorn our land throughout its length and breadth, we must picture to ourselves a very different system from that of the present day. The modern "office," with its draughtsmen and drawing-boards, its clerks and office-boy, and its principal, sitting in a comfortable chair, in a broadcloth coat, interviewing those whom it is the fashion to call his clients—a title more suggestive of law than of art—all this impressive scene vanishes like the "baseless fabric of a "vision," and a much humbler picture takes its place. We shall find the mediæval architect, with his tools in his hand, among his workmen, in the building yard, or on the scaffolding, not in a snug office, on a well-stuffed chair; in his shirt-sleeves, if he has a shirt, not in professional costume; directing masons and handicraftsmen, instead of clerks and draughtsmen; and setting out his work on the ground, on the paved floors, on the rough stones and timber, and not on paper at a distance of perhaps a hundred miles from the scene of action. The architects of those days, whom we accept and reverence as our masters, and whom it is our ambition to rival and our dream to surpass, were nothing more than the master workmen, the foremen of their craft; men who not only designed the work, but put their hand to it, and worked manually as well as intellectually in bringing it into shape. The difference between the architect and his workmen was then only one of natural gifts and acquired skill. The workshop was the common training ground of them all, and apprenticeship was the only schooling by which a lad learned to imitate and take his place among the masters of his craft. No doubt, some lads of superior fortune and standing may, from the first, have aspired to be leading artists. There is in existence an indenture of 1472, by which a widow binds her son apprentice for eight years to a famous architect, who was then building the cathedral of his own city, and also working upon it as a sculptor with his own hands. This student was, no doubt, intended for an architect in his turn, but he, like the rest, had to go through the workshop and learn his trade as a stonecutter at the banker. The architect rose from the ranks of the artisan, and purely by merit of his artistic qualifications. Some workman, during the progress of a building, would have an opportunity of showing capacity for original design, of which his employer would be glad to make use. He would be promoted to direct as well as to execute; his help would be sought in some new work, and so he would rise gradually to have the direction, perhaps, of some great minster, or some vast cathedral, on which he would continue to work with his own hands and those of his apprentices, often, in fact, being both architect, and also contractor to carry the work out for a certain stipulated sum. Over other trades than his own he would have little or no authority. The general mass and proportion of the whole building would be his; but subject to this condition the masonry and carpentry would very likely be contracted for and carried out independently by different men, each according to his own ideas. He who was really the architect, to whose invention the building owes its character, stood out so little from the other workmen that, in most cases, his very name has failed to reach us; and while we talk of the buildings of the seventeenth, eighteenth, and nineteenth centuries as the work of this great master or that, a long silence oppresses the fame of those great artists who so rarely put their names to their works, and whose unknown names it is the triumph of the antiquary to turn up now and then as he delves among the mouldy archives of treasuries and muniment rooms.

### ANCIENT AND MODERN ARCHITECTS.

So deep is the obscurity in which the architect of the middle ages is veiled that it has become the habit of some critics who dwell upon the shortcomings of modern architects to talk of the cathedrals and architectural monuments of our ancestors as if they had come into being without an architect at all. They are represented as the product of a style, of a school, and not of any one personage; the outcome of their age, the fruit of the combined efforts of a group of workmen trained in the same habits, methods, and principles. Now this, of course, is pure extravagance; a violent reaction from the modern ideal of professional architecture. Our ancient buildings did not grow of themselves without an author: somebody must have designed them, and that individual character which each possesses could not have been impressed by more than one individual mind. The working together of schools of workmen would produce a harmonious, consistent effect in detail; it could never evolve such a grand, simple conception as the west front of Peterborough, or the central towers of Gloucester and Canterbury, any more than it could have produced the dome of St. Paul's. Each of these artistic conceptions, so distinct, so individual, must have sprung from a single brain. Call him architect, master-craftsman, head-mason, or what you please, he and none other is the author of it, however large a part his colleagues may have played in filling in his outline and carrying out his ideas in detail. A work of architecture without an architect is no more possible than a tale without an author, however much the architect of the past may differ from those of us who call ourselves architects nowadays, in his method of work, and in the position he held as regards the building he was engaged upon.

Now this difference, as I have endeavoured to show, is mainly in this broad distinction, that while the modern architect resembles a professional man, and designs his buildings on paper, and directs them from a distance, only visiting them personally for a few hours at a time, and at considerable intervals, the ancient architect lived on the building, worked on it with his own hands, and designed it in the actual material, with no drawings to speak of, and with such setting out only as could be done in the mason's shed or on the walls and floors. The modern buildings, in fact, are designed on paper; the old were designed in brick, and stone, and timber.

Now the advantages of the ancient method are obvious. Success in architecture, sculpture, and the applied arts, as they are called, depends on the right treatment of material, no less than on brilliancy of design. Material must be used to the greatest economical advantage; it must be used strictly in conformity to its natural properties; the design must express those properties so clearly that it would lose its charm if translated into a different material; no matter how beautiful the design, it becomes bad art if it is unsuitable to the material employed. In modern work one sees the proof of this every day: mouldings that were designed for wood are worked in stone; and more frequently stone details are translated into woodwork, with the result of an indescribable coarseness and vulgarity of effect. The same may be noticed in nine instances out of ten of the use of marble in this country, a material which of all others requires to be treated respectfully and in accordance with its natural properties, but which modern architects often cut and undercut as if it were common stone, wasting thousands of pounds in spoiling a fine material which will only display its full beauties when

tenderly and delicately treated. Instances might easily be multiplied were there time to dwell on this part of the subject: suffice it to say that mistakes such as these, which so commonly disgrace our practice, could not be made except under the modern system of isolating the architect absolutely from all touch of the materials for which he designs. An architect who had worked at the banker himself would not set his masons to work in stubborn granite, or adamantine marble, the deep-sunk hollows suitable to a *soft* stone; nor would he apply the forms of arched construction to woodwork, which naturally consists of a framework of posts and rails filled in with thin panels; nor if he had been familiar with the use of honest material would he, I think, treat it disrespectfully like those who disguise it by fictitious modes of construction, and pretences of being finer than it is. We should not have plain useful sashed windows pretending to be mullioned lights, with useless half mullions masking the wooden frames; we should not see honest brick walls bedizened with thin boards nailed on and plastered between, to try and make the world believe the building a half-timbered house like Speke Hall, and many more in the neighbourhood of this great city. We should not be offended by three or four storeys made apparently to rest on a stone lintel across an open shop-front of twenty feet span, which would not carry its own weight in reality, and is, in fact, held up by the iron girder behind, which does all the work. All these are the sins of men who have only a distant acquaintance with material; who know it only as it appears on paper, where they can treat it as they like, and take any liberties they please.

But, again, the habit of handling material would not only save a man from many absurdities, such as those of which I have given instances, but would be full of suggestiveness for design. If proper use of material is one main condition of good design, it follows that those men only who understand the properties of material are fit to make designs; and a man can only learn what can be done in any material by being familiar with it, and, best of all, by handling and working it himself. Now, under the present system, we architects are seldom brought into contact with the materials we have to use in our buildings, at all events during our education, and afterwards, though we pick up some knowledge of them in our practice, and by observation of the building operations which we direct, we are in fact learners when we ought to be teachers; and we are in the false position of having to direct workmen who know how to do the thing better than we do. We are called upon to design and superintend carving without perhaps ever having had a chisel and mallet in our hand; we have to design wrought-ironwork without ever having "drawn out" a rod of iron, or shut a weld; and to construct wooden framing without ever having made a tenon and mortise, or fitted a door-panel. The consequence is that we often set workmen to do things in roundabout and difficult ways which might be done much more simply and yet quite as well or better; sometimes we give them impossibilities which they have to get round as well as they can; constantly we make them bestow work where it is quite thrown away, uselessly, if not worse, and miss the opportunity of employing labour where it would really tell with good effect. The knowledge of the deficiencies in our technical training comes to us through failure and disappointment, and too late to be repaired; and we look back in middle life on a record of money wasted, workmanship thrown away, material spoiled, and opportunities of artistic effect missed, which can never be recalled, and of which we are now only too painfully conscious.

Now, all this results from the fact that architects are trained on paper, and on paper only; and as long as this continues things will be no better. It is important that we should face this fact, and see what can be done to remedy it.

Let it be admitted at once that, except in the case of very simple buildings, we cannot go back to the old practice of dispensing with drawings altogether. The complex conditions of modern life and the amount of elaborate planning they involve forbid it. Of old the plans of all buildings were simple and conventional. Churches remain so to this day, and it would be easy enough, and a very delightful task to a modern architect who knows his craft, to build a great church without a single drawing if he could live on the work and direct it himself from first to last. But in olden time the house was almost as simple as the church. As it outgrew the mere two-roomed hut, the celar below, the solar above, in which, with the help of a few outbuildings, those families lived after the Conquest who were beneath the dignity of a castle, and as fresh rooms were added for retirement and comfort, till the complete type of the English manor house was developed, every building was arranged very much in the same way; the great hall in which the family ate, servants and masters together, and where the retainers slept round the fire; the withdrawing room at one end of it for the private use of the lord and his family; the kitchen and buttery at the lower end, as may be seen still in our old colleges at Oxford and Cambridge, and in those old mansions which have escaped alteration—all this was arranged on an accepted type, with little variation but such as was called for by peculiarities of situation. Ventilation was a matter of doors and windows, which fitted so badly that more care was bestowed in keeping fresh air out than letting it in; drainage there was none, and sanitary science was as yet undreamt of. In the case of large buildings, such as the town-halls of the great communes of Italy, Germany, and the Netherlands, the same simplicity of plan obtained. It was merely a question of adding more rooms for public offices, and making the big hall bigger. And in the great English mansions of the reigns of Elizabeth and James I. so little was planning considered that the long ranges of rooms which then came into fashion were generally accessible only by making one apartment serve as a passage to that beyond it.

Compare with this the ingenious planning of a modern mansion or town-hall: the careful seclusion of the offices, the provision for ready access and prompt service; the disposition of the several departments, each complete in itself, and yet each in direct communication with the rest, and with the centre or heart of the building; the artfully contrived approaches for public, private, official, and domestic use, all separate, yet all converging on the proper points; and then the provision for warming with hot air and hot water, for ventilating by inlets for fresh air and extraction shafts for pumping it out as soon as it has been used, for drainage and for protecting the interior of the building against its own drains; and it is obvious that there is no other way of proceeding than that of drawing everything out beforehand on paper to ensure that one necessity will not clash with another, that everything has been foreseen and provided for, and that the whole scheme will work out without difficulty. And this amount of planning on paper is not confined to large buildings. The habits of modern life and the spread of luxury downwards make it quite as necessary in small buildings. A little house requires quite as much good planning as a large one, sometimes even more when space is confined and means are contracted.

But though this is so, and the architect's drawing office must be recognised as a necessity of modern architecture, and of the future as well, for there is no chance of society returning to the simplicity of ancient life, still it does not follow that the architect should shut himself up in his office with his pupils and draughtsmen in the present fashion. It would be a hard case indeed if he alone among artists were never to know familiarly the materials he deals with, but only to prescribe from a distance how

they are to be employed by other persons who know better than he what can be done with them. It is not so with any other artist; painters and sculptors handle their own materials; Pheidias and Apelles, Michelangelo and Raffaello, Ghiberti and Verrocchio, Peter Vischer and Albrecht Dürer, were handicraftsmen; and so were those master-masons who live for us by their works rather than by their names, to whom we owe the mighty monuments of Northern Gothic art. Never till modern times were planning and building, designing and executing, so absolutely dissociated and ranked apart as separate arts; and never, so long as this divorce continues, can we hope for a resurrection of that true method of design and that steady progress of style which spring from the suggestions afforded by work done.

Here, then, is a defect in the training of architects which your new school is admirably suited to repair. By means of your workshops and studio you can bring the student into contact with those materials which he learns in his master's office to arrange and combine, but never has the chance of handling. You can make him something of a handicraftsman, and send him back to his drawing-board with such a knowledge of the stone or timber or iron which he has to work into an architectural design as will enable him to treat it correctly and therefore economically. It is not to be expected, of course, that an architect should be trained into a first-rate workman, but it is certain that if every architectural student were to spend a year, or perhaps more, during his training in the mason's yard and at the carpenter's bench, working with the workmen and as a workman himself, he would come to the task of original design furnished with a stock of ideas and capacity for invention not to be got in any other way, and would be saved from those absurdities of abused material and dishonest construction which disgrace our modern practice. Some such scheme as this will, I hope, form part of your programme, either by opening workshops of your own, where masonry, brick-cutting, carpentry, joinery, plastering, and plumbing might be taught, or else by arranging with the building trade at Liverpool that your students shall have the opportunity of seeing these trades carried on in the workshop and of putting their hands to them themselves. This, indeed, would be by far the better way of doing it, and I am glad to see that your Board of Governors has upon it representatives of the Master-Builders' Association and the Building Trades' Federation, who may, I hope, be induced to help forward and give effect to the suggestion I have made.

### ISOLATION OF THE ARCHITECT FROM THE OTHER ARTS.

There is yet another evil in the seclusion of the architect's office: it shuts him up, not only from practical acquaintance with the building trades, but also from all intimacy with the sister arts, and, what is as bad, it shuts out the painter and sculptor from all chance of establishing a sympathy with the architect with whom they are inevitably from time to time called upon to co-operate. The consequence is that, when that occasion arises, it is impossible for artists so imperfectly acquainted with each other to produce any harmonious result. More especially is that the case with the architect and the sculptor, whose crafts were once not two but one, and are from their nature so closely related that it is impossible to draw a line of distinction between them. For what is architecture but the art of dealing with form on a grand scale, as sculpture is that of dealing with it on a smaller scale? The same faculties of line, proportion, and scale are required in one as in the other. Of all the arts these two are the least separable without mischief; and of all artists it is most essential that these two should be trained together, and trained exactly alike, till the happy consummation is attained when, as in the olden time, they will form once more a single art in which the same man may work indifferently. We are far enough from that at present. What is commoner than to find a sculptor hopelessly at sea when he is called upon to go beyond pure sculpture; in small work, in figures, in details of ornament he may produce the most charming work; but when he has to combine them into some great monument he crosses the line of architecture and fails miserably. This is because he is unused to deal with form on a grand scale; his architectonic sense is not wanting, but undeveloped. Take, again, the case of a statue requiring a pedestal. Till lately the sculptor seems to have given up the pedestal as a bad job, and to have been satisfied to make any sort of stand do that was of suitable height. Now he is beginning to see that something more should be made of the pedestal; but this, again, is a question of architecture, and as likely as not the pedestal he designs is to an architect's eye abominable. And the architects fare no better. It is not necessary to speak of those who, conscious of their incapacity, and indifferent to the finer expressions of art, wash their hands of the whole thing, and turn the carvers into their building to do their own pleasure, and even to choose their own subjects, irrespective of the building, which, perhaps, they cannot spoil, whatever they may do. But an architect who loves his design and desires to do the best for it necessarily forms in his mind some idea of the kind of decoration he would wish to bestow on it; and when he takes the sculptor into his confidence and tries to explain his ideas he finds their mutual inexperience and deficiencies in each other's crafts so great that nothing results but disappointment and vexation.

Now this embarrassment is not necessary; if architects and sculptors were trained together and trained alike there would be none of it. And here in your new School you have a ready remedy. Under one roof—and that is a matter of the greatest consequence—you propose to carry on instruction in the three great arts, and you can easily gather the students together and group them as you please. It will, I hope, be an understood thing that every architectural student shall, as a necessary part of his training, pass through the modelling school, and learn to finger the clay. This will teach him to fix in a concrete form the ideas of sculptured ornament that float through his mind as he designs his buildings, and to satisfy himself by experiment how far they are suitable and practicable, and how far they require to be modified. And, in the same way, I would have every young sculptor thoroughly trained in the School of Architecture, so that he may understand what is before him when he is called upon to adorn a building with his own special art; that he may develop what I have called his architectonic sense, and learn how to deal with form on a large scale when he is called upon to design work which lies more within the field of architecture than that of sculpture; fields, however, which lie side by side, and which have, as I said before, no fence or boundary line drawn between them.

### THE SCHOOL OPEN TO ALL, NOT ONLY ARCHITECTS.

But it is not only to the sculptor and the painter—for what I have said of the sculptor applies, though not to the same extent, to the painter also—that you will throw open your School of Architecture. It will, I trust, be open to all who are concerned with building in whatever degree. It has been the defect of most schemes hitherto started for educating architects that they have had for their object the advancement of the architect rather than that of architecture; and the ideal architect whom they are designed to produce is not an artist with comprehensive views and sympathies, in touch with his brother artists and the handicraftsmen whose works he directs, and whose labours he shares, but a respectable professional man with clients and clerks, who shuts himself up in his office and manages his architecture through the penny

post. The efforts of these idealists are directed, not to throwing down the barriers of convention which separate the building-artist from his natural brethren, but to building up the walls of seclusion higher, and closing the gate more firmly against the profane vulgar who may strive to enter in, but can only do so by the door of examination and diploma, of which the chiefs of the profession will keep the key.

Now, if the pursuit of architecture is to come to this—if architecture, to use the old battle-cry of this controversy, is to cease to be an art and to become a close profession—then all I have said this afternoon is beside the mark, and your new School of Architecture and the Applied Arts is started on a wrong basis. Your object is to train men to be artists in their several crafts, not to coach lads for the examination of the Royal Institute of British Architects, or whatever other body may seek to enclose all who practise architecture within its fold. Your desire is to train their hand and eye, to form their taste, to direct their observation, and to give them practical experience of the operations they will have to control, not to enable them to answer with credit a paper of questions of which the answers may be learned from books and prints without any experimental knowledge of *things*. Your object is not to promote the seclusion of architects into a snug privileged profession, but the formation of a school of artists who may do something to revive and carry forward the architecture of the day. Yours will be, in fact, not a school of architects, but a school of architecture.

Now though the development of better architecture must be the work mainly of architects, men of higher artistic training whose influence dominates and secures a following, still architects by themselves will never bring about that general revival of sound taste in building which it should be our aim and object to effect. For nine buildings out of ten no architect is ever employed, and they are designed and carried out by men who have had no artistic training whatever. It is idle to complain of this state of things, and to say that if people want good houses they ought to employ an architect to design them. In the majority of cases the price will not afford it, and in that of very simple suburban houses there is really no occasion for his services. This class of work is now, and will always be, left to the builder. But it does not follow that simple buildings should be ugly, or unarchitected buildings hideous, as is too frequently the case. This is a matter of which the importance cannot be overestimated. Most of us at one time or another have to live in houses of this kind, all of us have to suffer from them as we walk the streets; and it is of as much consequence to our happiness to raise the standard of architecture in common things such as these, so that we may walk about our towns and suburbs without a perpetual sense of disgust, as it is to raise a few beautiful buildings here and there amid a wilderness of mediocrity or ugliness. It is, then, essential that builders should have some architectural training, as well as architects, in order that the work they turn out may be in good taste. At present most of the faults of builders' architecture lie on the side of commission rather than omission. What offends is not the plainness of their work—that we should welcome—but the attempts it makes at splendour. Were the builder trained to a knowledge of true principles in art he would learn to appreciate restraint, to see that ornament is not necessary, that simplicity has its own charm, and that proportion should rule supreme; not only proportion of parts to a whole, but proportion of means to the object, and proportion of style and of detail to the purpose of the building. I trust, therefore, that the advantages of the Liverpool School of Architecture and the Applied Arts will be largely made use of by builders as well as architects, and that those representatives of the building trade who are on your council will do what they can to induce their younger brethren to go through the training they will get there. The distinction between builder and architect has always seemed to me purely conventional and absurd. Every man who designs a building is an architect, whether he carries it out himself or employs someone else to do it; and as builders are in the habit of designing what they build, and therein act as architects, so I see no reason why an architect, if he pleases, should not turn builder and carry out his own designs as a builder would.

### THE STUDY OF THE HISTORY OF ARCHITECTURE.

But besides the practical side of the study of architecture it has also what may be called its literary and historical side. Your course of studies includes attendance at lectures on the History of Architecture, a subject of which, of course, no student should be ignorant. At the same time it is a subject of which too much has been made in time past, and of which too much may easily be made in the future. There was a time which many of us remember when it was thought that knowledge of bygone styles, mouldings and details, and a familiar acquaintance with old buildings, accompanied by plenty of sketching, was enough to furnish an architect with his stock-in-trade. Latterly sounder views have been advanced, and people are now beginning to feel that archæology is not art, and that memory cannot take the place of invention. A man may be an admirable archæologist without a spark of that creative instinct which makes the artist, and which no amount of archaic law will implant in his bosom if it be wanting. The reverence with which we have been taught to regard old work has misled us into a slavish worship of precedent, and an abject craving for authority by which to shape our own work. Close imitation of old work has been regarded as the only safe course, deceptive imitation of it the highest measure of success. Novelty has been regarded with suspicion, and reference to ancient example a sufficient reply to criticism.

This is not the proper use of the bygone art of our ancestors, nor is it to bygone art alone that our students should be taught to look. The art of all ages, past and present, is open to us to study and to learn from. We should admire a thing not because it is old but because it is good, and old work should be criticised as freely as new. Above all it should be the student's object to discover the principles of design by which the successive styles were governed, and in tracing their history he should trace the influence of circumstance and accident which modified the current art of the day, until the style passes into a new phase, the page is turned, and a new chapter of art opens. In most cases it will be found that these changes were brought about, not so much by any mere æsthetic impulse, as by suggestions of construction, of economy of material, of increasing skill in the working of stone and wood. Consequently the history of architecture, and of the development of style out of style, should never be taught without incessant reference to the constructional methods which were employed, and which played the principal part in the changes resulting from their employment. Architecture is a logical art; scarcely any change has taken place in it without a sufficiently obvious reason: there is little room in it for caprice, none for the mere imaginings of wilful fancy; and it is of no use to study its outward forms and shapes without going deeper and finding out the root from which they spring. It is with these underlying principles alone that we are really concerned: they are true for all time, and when we have discovered them and traced their influence on the development of the bygone styles of our own or other lands, we shall have got from our study of ancient example nearly all the lesson that it is calculated to teach us. Not all, for the architect will rise from the study of fine work, be it ancient or be it modern, refreshed with a sense of its power and beauty, and inflamed with the passion, not, indeed, of

imitating it – that would be but a poor result of his lesson —but of emulating it. Looking back on the work of his predecessors, like Michelangelo on the dome of Florence, as he left that city to build the cupola of St. Peter's at Rome, he may be constrained to say, "*Meglio di te non "posso,*" but he must also add, with him, "*Come te non "voglio.*"

# PARLIAMENTARY.

## A Teaching University for London.

In the House of Lords on Thursday, the 15th August, Earl Cowper called attention to a question which, he said, as it had not assumed a party character, was not so much discussed as many other matters. He referred to the establishment of a great teaching University for the great metropolis of London. Everybody was agreed that it was a positive disgrace that the great population of London was not possessed of that which almost every capital in Europe was possessed—a great teaching University—because they could not call by that name the University of London, which was merely an examining board, and which, in spite of its name, had no more to do with London than it had to do with the rest of the United Kingdom. What was wanted was that which for years thinking people had been striving for—namely, that there should be a proper and economical system of teaching which would apply to poor as well as to rich, and which would conduct the student from point to point up to that final examination which could only be considered as the crowning of the whole, and by which the stamp of a completed education would be conferred. The plan proposed by the Commission, of which he had had the honour to be Chairman, had received the support of all the bodies interested in the question, and he urged the Government to act on the report of that Commission without any further delay. If in that first Session a Bill had been brought forward to carry out the recommendations of the Committee, it would have slipped through utterly unopposed and with as little difficulty as an ordinary private Bill. Even last Session a Bill would easily have passed if Parliament had not come to an untimely end, and the Bill, which he was grateful to the late Government for bringing in, would have become law. He could not, of course, hope that in the present short Session anything would be done, although he wished that it could. But if an expression of opinion could be elicited from her Majesty's Ministers to say that they were disposed to regard this subject favourably, that declaration, together with the fact that the late Government brought in a Bill on the subject – showing that both sides were unanimous—would have the effect of preventing those new differences of opinion arising which he deprecated, and would encourage the hopes of those who now for many years had been striving under every kind of difficulty for this end, and who would be assured that the question would not be again indefinitely postponed.

The Duke of Devonshire, in reply, said: My noble friend was good enough to inform me of his intention to call attention to this question, and I was obliged to tell him that, although this would perhaps be the most convenient opportunity, if he desired to say anything on the subject during the present Session, there was only one answer which could possibly be given to him on behalf of Her Majesty's Government. It has been stated in the Queen's Speech itself, and repeatedly in the course of this debate, that under the present circumstances Her Majesty's Government intend to proceed with no legislative measures whatever, except such as are absolutely necessary for carrying on the business of the country. My noble friend is perfectly well aware that it would be quite impossible to carry out a settlement of this question without legislation. As he has stated, a Bill was introduced by the late Government for the purpose of carrying out the recommendations of his Commission, but was not proceeded with, even to the second reading. It would be quite impossible to make an exception from the general rule, which has been universally acquiesced in, and now to introduce legislation on this subject, which cannot be said to be of first and most urgent necessity. I may state that, like our predecessors, we are strongly convinced of the desirability, and even of the necessity, of meeting the views which have been expressed in favour of the establishment of a teaching University for London, and I am sure that Her Majesty's Government and the country are deeply indebted to my noble friend and his colleagues for the immense amount of labour and trouble which they have expended in examining this question. But while we are entirely at one with our predecessors in desiring the establishment of such a teaching University, my noble friend is rather under a misapprehension as to the degree of unanimity which exists in regard to the mode by which that teaching University shall be established. My noble friend has mentioned the unanimity with which the present scheme has been received by many important bodies in the country, but he has passed over somewhat lightly the strong objection taken to the scheme by a large and not unimportant section of Convocation. It has not been possible for any of my colleagues to look into this matter very closely, and I am afraid that, as it is impossible to legislate at present, it would be premature on my part to commit the Government wholly to the scheme in the shape proposed by his Commission. I can only assure my noble friend that the subject will receive careful attention on the part of Her Majesty's Government before Parliament meets again for legislative business; and that we are fully aware of the deep obligations under which the country has been placed by the very large amount of trouble which my noble friend has given to the discussion of the question.

# LEGAL.

## The Building Line.

ALLEN AND ANOTHER *v.* THE LONDON COUNTY COUNCIL.

On the 22nd July the Court of Appeal (Lords Justices Lindley, Lopes, and Rigby) delivered judgment in the appeal of the plaintiffs against a decision of a Divisional Court (Mr. Justice Wills and Mr. Justice Wright) upon a special case stated by a metropolitan police magistrate, who had made an order for the demolition of a certain building in the metropolis as being beyond the building line. The question was raised upon the construction of section 75 of the Metropolis Management Act 1862 – viz. whether the decision of the superintending architect of the Metropolitan Board of Works (now of the London County Council) is binding, not only as to the general building line in a street, but also upon the question in which street or road a particular house, situate at the corner of two streets or roads, is situate for the purpose of the determination of the building line by which it is to be regulated.

The facts of the case, with the judgment of Mr. Justice Wills in the Court below, are fully reported *ante*, at page 603.

Mr. Channell, Q.C., and Mr. Macmorran were for the plaintiffs; and Mr. Avory and Mr. Daldy for the London County Council.

Lord Justice Lindley, in delivering judgment dismissing the appeal, gave as his opinion upon the construction of the certificate that it did decide that the plaintiffs' house was situate in Birchington Road. The question was whether, under section 75, this point was to be decided by the superintending architect or by the magistrate. His Lordship continued:—The following circumstances must co-exist in order to justify an order for demolition under section 75, viz.:—(1) There must be a building, structure, or erection of some sort. (2) That building, structure, or

erection must be erected with the written consent of the Metropolitan Board of Works (or now of the County Council). (3) That building, structure, or erection must be in some street, place, or row of houses. (4) That street, place, or row of houses must have a general line of building. (5) This line of building—*i.e.* the line of building of the street, place, or row of houses in which the building complained of is situate—must be decided by the superintending architect appointed by the Metropolitan Board of Works (or now by the County Council). (6) Lastly, the building, structure, or erection must be erected beyond the line so decided. What is left to the decision of the architect is the existence and exact position of the general line of building of the street, place, or row of houses (if any) in which the building &c. complained of has been erected. In case of dispute the magistrate must decide all the other matters referred to—*e g.* whether the building &c. complained of is one to which section 75 applies, especially having regard to section 74; whether the necessary consent has been given; whether the building &c. is in a street, place, or row of houses, "street" being interpreted as directed in section 112; whether the building &c. has been erected beyond the general line of building for that street &c., as decided by the superintending architect. Such is, in my opinion, the true construction of the section, and of the decision in *Spackman* v. *Plumstead Board of Works* (10 A. C., 229), which set at rest the doubt whether the magistrate could review the architect's decision as to the general line of building. So far the interpretation of the statute is reasonably plain. But then it is said that the question still remains, who is to determine whether the building complained of is in the particular street, place, or row of houses to which the architect's certificate is applicable? This is the point on which Lords Watson and Bramwell differed in *Barlow* v. *Vestry of St. Mary Abbotts* (11 A. C., 257). A careful perusal of Lord Herschell's judgment has led me to the conclusion that he agreed with Lord Watson, and that Lord Fitzgerald took the same view. There is much to be said for this interpretation of the Act; for, the object of the Act being to regulate lines of building, the architect, rather than the magistrate, seems naturally to be the person to say to what line of building a particular house should conform. The general line of building which the architect is to decide is "such "general line," and by "such" is meant the general line for the street &c. in which the house in question is. The architect might no doubt assume, without deciding, that the building complained of was in a particular street, place, or row of houses, and simply certify the general line of buildings of that street &c., leaving the magistrate to determine whether after all the building was in the street &c. to which the certificate applied. But this would be to deprive the architect's certificate of half its value, and the interpretation which leaves him to decide what building line is to be conformed to seems to be preferable to an interpretation which leaves that question to the magistrate. For these reasons, and thinking, as I do, that this view of the section is more in conformity with the decision of the House of Lords in *Barlow's Case* than the interpretation contended for by the appellants, I have come to the conclusion that this appeal ought to be dismissed. The architect's certificate here, taken with the plan, supplies the omission which led to the decision in *Barlow's Case*, and does certify, with sufficient clearness, that the appellants' house is not only in Birchington Road, but is in the row of houses the building line of which is defined.

Lord Justice Lopes and Lord Justice Rigby delivered judgment to the same effect.

## Ancient Lights.

LORD BATTERSEA *v.* THE COMMISSIONERS OF SEWERS OF THE CITY OF LONDON.

This was a motion for an injunction which was heard by Mr. Justice North on the 26th July. The plaintiffs were the lessees of premises at Weavers' Hall, Basinghall Street. They sued the Commissioners of Sewers to restrain the erection of new offices adjoining the other Corporation buildings, on the ground that such erection would interfere with access of light to the plaintiffs' ancient windows. The defendants' premises occupy the site of four old houses, formerly numbered 72, 73, 74, and 75 respectively. The houses were pulled down in the year 1875. The evidence showed that the house No. 75 was pulled down by July 16, 1875. The other three houses were not pulled down till October 1875 at the earliest. The plaintiffs now moved for an interlocutory injunction to restrain the defendants from erecting their new buildings so as to darken the plaintiffs' premises. The plaintiffs claimed their right to access of light under section 3 of the Prescription Act of 2 & 3 Will. IV., ch. 71, as affected by section 4. The third section provides that the owner of premises shall have a right to access of light after twenty years' uninterrupted enjoyment; and section 4 provides that "no act or other matter shall be deemed to be an "interruption within the meaning of this statute unless "the same shall have been or shall be submitted to or "acquiesced in for one year after the party interrupted "shall have had or shall have notice thereof, and of the "person making or authorising the same to be made." It has been held in the well-known case of *Flight* v. *Thomas* (8 El. and Fin., 231) that by reason of the interpretation given to the word "interruption" in the 4th section of the Prescription Act that, where access of light to premises has been actually enjoyed for a period of nineteen years and a fraction of another year, the right will have become certain, for no interruption for the space of a year can take place before the expiration of the twenty years. Among other objections to the motion on the part of the defendants it was urged that, so far as the premises formerly numbered 72, 73, and 74 Basinghall Street were concerned, the plaintiffs' right of action had not yet commenced, because twenty years had not quite expired since the old buildings were pulled down.

Mr. Swinfen Eady, Q.C., and Mr. J. G. Wood appeared for the plaintiffs; Mr. Samuel Hall, Q.C., and Mr. John Henderson for the defendants; Mr. C. E. E. Jenkins appeared for the landlords (the Weavers' Company), who had also commenced an action.

Mr. Justice North granted an interim injunction to restrain the erection of buildings on the site of No. 75, so as to obstruct the access of light to the plaintiffs' premises. He also granted an interim injunction to restrain the defendants from carrying their new buildings on the site of the other three houses higher than the buildings that were pulled down in 1875.

## House-"Drain"—Combined Drain—Sewer.

KERSHAW *v.* TAYLOR.

This case came before the Court of Appeal (Lord Esher, Master of the Rolls, and Lords Justices Kay and Smith) on the 29th July, on appeal from the decision of a Divisional Court upon a case stated by a metropolitan police magistrate (noted at p. 574).

The magistrate had dismissed a summons under the Public Health (London) Act 1891 against the respondent for permitting a nuisance—viz. a foul and defective combined drain and house drains connected therewith. The appellant, Kershaw, a sanitary inspector, proceeded by direction of the Wandsworth Board of Works, the sanitary authority for Streatham. The respondent, Taylor, was owner of a house known as "Avon." In August 1885 the respondent's predecessor in title gave, as building owner, written notice to the board of his intention to build six semi-detached houses, with a plan showing the system o drainage proposed—*i.e.* that each pair of houses should possess a combined system of drainage. In August 1887 the board by resolution decided not to object to the plan, subject to the drainage works being executed to the satis-

faction of the surveyor. The six houses were completed, including a semi-detached pair called "Clyde" and "Avon" and another semi-detached pair called "Wye" and "Severn" respectively. In October 1894 a nuisance, owing to defective drainage, was discovered at "Avon," and the appellant served notice on the respondent to abate it. The respondent caused the ground to be opened, and for the first time ascertained that his premises "Avon," together with "Clyde," "Wye," and "Severn," were all drained by the drain belonging to "Avon." He refused to proceed with the work of repairing the drain beyond the point where it received the drainage of "Wye" and "Severn," contending that from that point the drain was a sewer vested in the board which he was not liable to repair. The appellant contended that the premises "Clyde," "Avon," "Wye," and "Severn" were drained by a combined operation within the meaning of the Metropolis Management Act 1855, and the Amendment Act 1862, under an order or direction of the board, and that the resolution of August 1887 was in point of law an order or direction to that effect, so that the respondent could not be heard to say that the drain was a sewer, and repairable by the board. The respondent contended that there was no order or direction of the board for draining the premises by combined operation within the Acts, and that the drain was a sewer from the point where it received the drainage of the premises known as "Wye." The learned magistrate was of opinion that the resolution of the board of August 1887 was not an approval of the existing system of drainage by reason of the variance between that system and the plan attached to the resolution; that in law the existing system was a sewer from the point where it received the drainage of the premises known as "Wye." The question was whether he was right in his decision.

The Divisional Court gave judgment for the respondent, holding that where a combined system of house drainage under section 74 of the Metropolis Management Act 1855 (18 & 19 Vict. c. 120) has not been carried out in the manner sanctioned by the district board of works, but the system is discovered, after a lapse of time, to be actually a sewer and not a drain, a successor in title of the building owner, who has failed to carry out the system originally sanctioned, when called on to abate a nuisance under the Public Health (London) Act 1891, is not estopped from saying that it is a sewer which the district board are liable to repair.

Kershaw appealed.

Mr. A. M. Channell, Q.C. (Mr. G. F. Marwood with him), appeared for the appellant, and Mr. E. Bray (Mr. Reginald Bray with him) for the respondent.

Their Lordships dismissed the appeal, being of opinion that the drain in question was not a "drain" within the meaning of section 250 of the Metropolis Management Act 1855, but was a "sewer" within the meaning of that section, which the district board were liable to repair.

## The London Building Act 1894.

CROW *v.* REDHOUSE.

This was an appeal from the judgment of a Divisional Court upon a case stated by a metropolitan police magistrate on an appeal by Samuel Redhouse, under section 150 of the London Building Act 1894, against a decision by Mr. Arthur Crow, the district surveyor for the Whitechapel Spitalfields district. The proceedings before the magistrate (Mr. Dickinson) are reported at page 440, and before the Divisional Court (Mr. Justice Wills and Mr. Justice Wright) at page 603. The present appeal came before the Court of Appeal, consisting of Lord Esher, Master of the Rolls, and Lords Justices Kay and Smith, on the 29th and 30th July.

Section 150 of the London Building Act 1894 provides that where it appears from the building notice served on the district surveyor under this Act that it is proposed to erect any building which will be in contravention of the Act, the district surveyor shall serve upon the builder or building owner a notice of objection, and it gives an appeal to a magistrate from this notice. Redhouse proposed to rebuild a six-storey warehouse, No. 3 Church Street, which in consequence of a fire was taken down as dangerous in November 1894 for more than one-half of its cubical extent, so that the proposed building would be a "new "building" as defined by section 5, subsection 6, of the London Building Act 1894, which defines the expression "new building" as "any building which has been taken "down for more than one-half of its cubical extent, and "re-erected, or commenced to be re-erected, wholly or "partially, on the same site after the commencement of "this Act." A notice of objection was served by the district surveyor on Redhouse. The matters in the notice were, however, remedied, with the exception of the objections made to the use without thickening of a wall, forming the west boundary of the site, as the party-wall between the reinstated warehouse and the adjoining warehouse No. 1 Church Street, the said wall not being in conformity with the provisions of the Act as to new party-walls. Before the fire the party-wall had been the party-wall between Nos. 1 and 3. So far as the party wall concerned No. 1, which had not been seriously injured by the fire, it had been reinstated in the course of the reinstatement of No. 1. These reinstatements had not amounted to the erection of a "new building" at No. 1. Redhouse appealed to the magistrate on the ground that he was not compelled by law to make the party-wall conform to the provisions of the Act of 1894. The extent to which the party-wall had been burnt and taken down in consequence of the fire amounted only to one-third of its superficial area. The remainder was safe. The party-wall had been erected in conformity with the previous Building Acts, but was not of the thickness required by the Act of 1894. Redhouse contended that as the party-wall had not been taken down, burnt, or destroyed to the extent of one-half thereof, by virtue of section 208 of the Act of 1894, the proposed use by him of the party-wall was not in contravention of the Act. Section 208 enacts that "unless in any case the "Council otherwise allow, where a party-wall or external "wall not in conformity with this Act has been taken "down, burnt, or destroyed to the extent of one-half "thereof (measured in superficial feet), every remaining "portion of the old wall not in conformity with this Act "shall either be made to conform therewith or be taken "down before the rebuilding thereof." The surveyor, Mr. Arthur Crow, contended that the proposed re-erection being a "new building" within section 5, subsection 6, of the Act of 1894, the party-wall should be so erected as to comply with the provisions of the Act, and that there was no exemption enacted or implied in section 208. The magistrate held that Mr. Redhouse's contention was correct, and that he could not be compelled to take down, rebuild, or thicken the party-wall [p. 440]. In the Divisional Court Mr. Justice Wills held that the magistrate's decision was right, Mr. Justice Wright dissenting [p. 604]. The magistrate's decision was accordingly affirmed. The surveyor appealed.

Mr. Dickens, Q.C., and Mr. Daldy appeared for the surveyor; and Mr. R. Cunningham Glen for Redhouse.

The Court dismissed the appeal, the Master of the Rolls saying that they could not find any section in the Act which enabled the surveyor to deal with this wall. Section 10 of the former Act (the Metropolitan Building Act 1855) seemed to have been dropped out of the present Act, and the Court could not read it in. As to section 5, that section merely defined the expressions used in the Act, and it was clear that it was not an enacting clause.

The Lords Justices concurred.